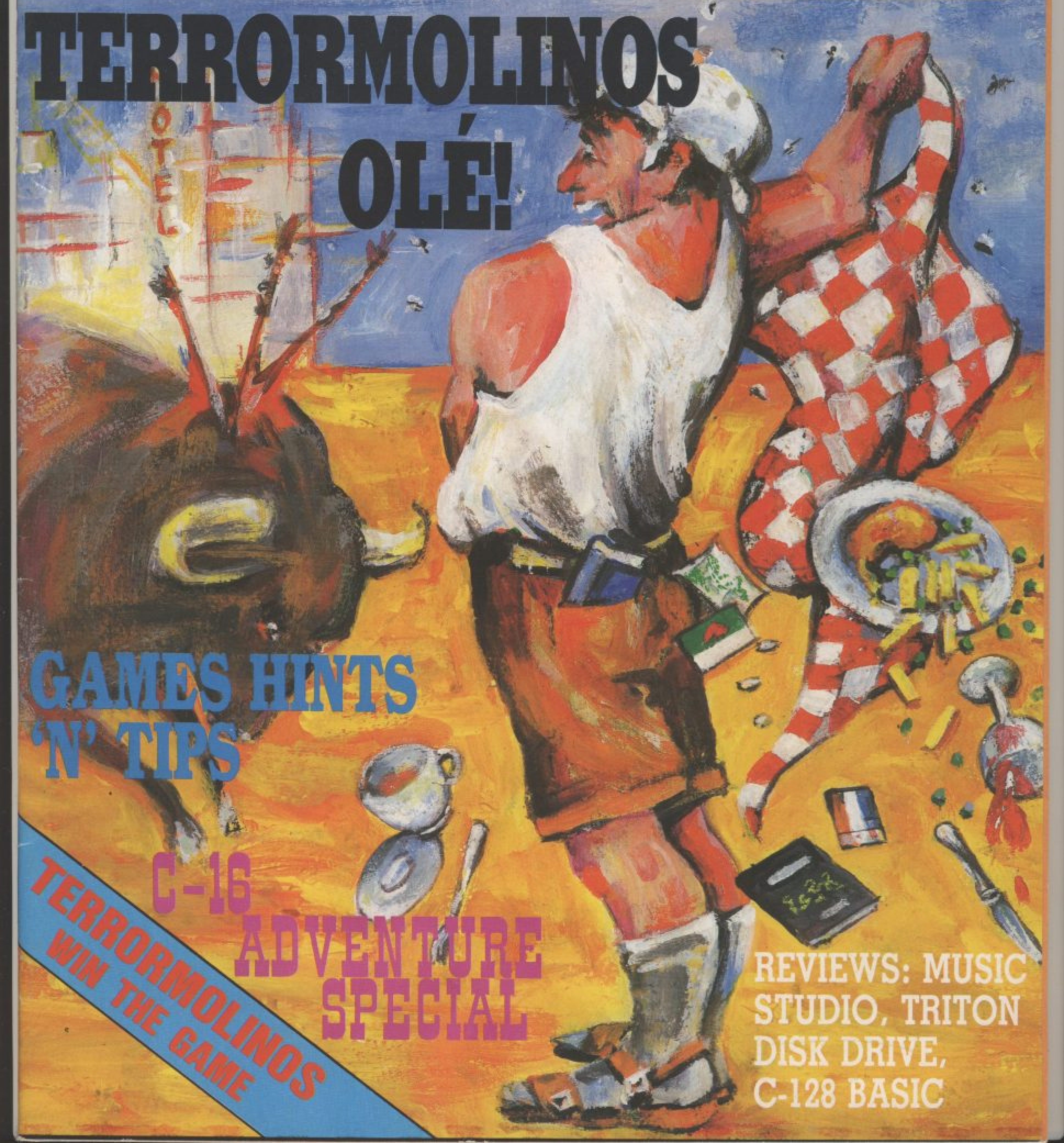
COMMODORE USER

August 1985

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C-16 ADVENTURE SPECIAL

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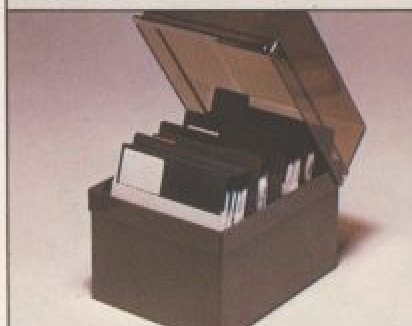
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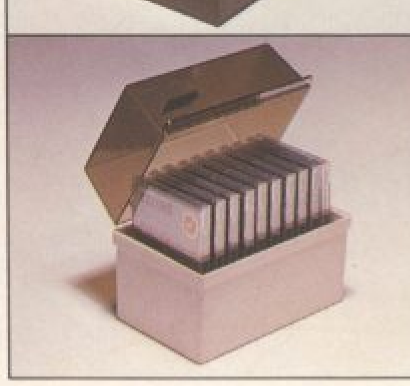



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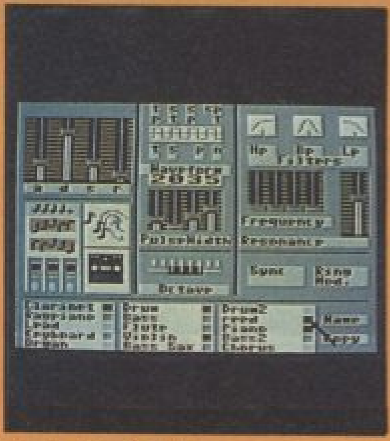
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AUGUST 1985



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Marshall Smith

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The new *Riteman C Plus* is a fully compatible printer for Commodore micros. Does its unique design and up-market spec make it a good buy?



Cover by Dee Shulman

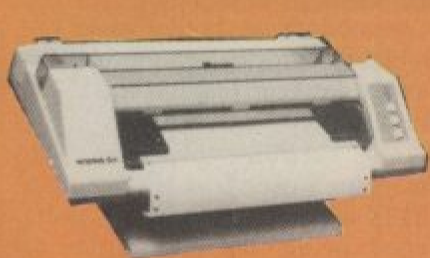
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Triton Quick Disc



C-128



Riteman C Plus

PEOPLE

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COMMODORE BUNDLES UP

Commodore's trump card at this year's disappointing UK Commodore Show may have been the arrival of the 128, but it had a few more cards up its sleeve. Notably the announcement that instead of cutting prices on existing products, it's bundling them up into what it calls "added-value packages".

So the Commodore 64 joins the Commodore 16 ranks as a Starter Pack containing a datasette and the International Soccer game — all for £199. Buy either pack before the end of August and you're offered three nights' free accommodation at a choice of 300 hotels in the UK and the Continent. There's also a competition to win a computing weekend — bring your own computer?

The second bumper-bundle involves the ailing Plus/4. That's being packaged up with the 1541 disk drive, MPS-801 printer and Impex's Company Pack 1-2-3 business software, all for £449 — a claimed saving of £198.



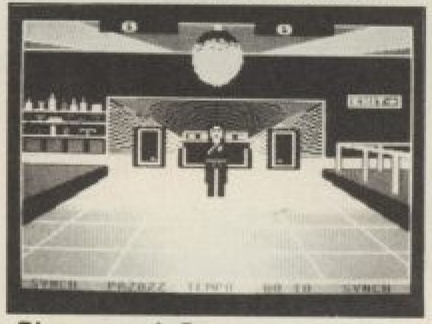
Have micro will travel — weekend breaks courtesy of Commodore

Could this be an admission that the Plus/4's ROM software is somewhat less than useful?

Finally, there's two peripheral bundles. For £349 you get a 1541 disk drive, the MPS-801 printer and Easy Script. Whilst £229 buys you the 1541, the Commodore modem (including a free year's Compunet subsription) and a selection of Commodore disk games.

There seems to be two considerations behind this masterplan. Primarily, Commodore is determined to kill the dealer discounting that's causing chaos on the High Street — instead of paying less, you get more for the money.

Secondly, Commodore is concerned about the seasonal nature of its business: computer sales tend to slump in the summer and pick up for Christmas. Launching its bargain-bundles in July should help to stem the tide and help dealers to get rid of a lot of existing stock.



Disco scene in Pazazz — not quite The Hippodrome

MORE RAM FOR 128

Commodore has issued more 'preliminary' information on the RAM expansion cartridge for the C-128, revealed in the June issue.

The cartridge plugs into the machine's user port to give up to 512K additional memory — pretty good going. It's memory is accessed through Basic by using the new commands, FETCH, STASH and SWAP — thankfully there's no peeking and poking to do. Banks of up to 64K of data can be manipulated by specifying the start location in the RAM cartridge, but only in 128 mode.

In CP/M mode the cartridge acts as a RAMdisk (an area of memory that behaves like a 'temporary' disk drive) enabling you to load and save data at one megabyte per second — that's 200 times faster than the 1571 disk drive.

More interesting, the cartridge can be tied into commercial software to increase its capabilities. No prices yet — but with that much memory, it won't be going cheap.

LOTS OF PAZAZZ

Acclaimed education software house, ASK, has produced probably the first 'leisure' program for the 128 to run in '128 mode'. Called *Pazazz*, it's also available for the 64. So what is it?

"Pazazz brings the world of Entertainment to your Commodore computer and puts you in the Producer's chair", enthuses the blurb. The program consists of four sections that allow you to design a scene, compose music, create a performer and control the action.

Confused? Here's an example: you could start with a street scene, then design a character and then animate him or her to dance to the music you've composed.

So you're really getting three packages in one, drawing software, a sprite editor and a music composer, the unique feature being that you can animate and synchronise the music and movement.

Pazazz has four preset scenes, a street, circus, graveyard and disco, but you can design your own. There's also a choice of four preset characters and music. You can also load any tune from the Commodore Music Maker series. Each section is stored as a file so, having created a library of them, you can mix and match any combinations.

Files (except the scene graphics) created on the BBC B, Spectrum and Amstrad machines can also be used. Available shortly, Pazazz should cost £14.95. More details from ASK on 01-874 6046.

• SHORTS •

Video Goonies: American software house Datasoft has just announced that it's to write a computer game based on *'The Goonies'* — Steven Spielberg's latest dollar-grabbing movie. Not released yet in the UK, the film is already raking in the readies Stateside. What will the game be like? Apparently it's an arcade/strategy romp in which the kids search for pirate's treasure, pursued by the evil Mama Fratelli. The Commodore 64 version should be available by September at £9.95 on tape (£14.95) on disk. By the way, Datasoft has a game about Zorro on the way, too.

• SHORTS •

Speed Loading: Evesham Micro Centre has introduced what looks to be the cheapest fast-loading cartridge for the 64 and 1541 disk drive. Called *Quickdisc Plus*, it costs £19.95 and is based on the original Qickdisc software package — with a few utilities thrown in. It's claimed to load and save up to five times faster, formats disks faster, has improved DOS commands, includes Centronics interface software — there's a reset switch too. We'll be looking at it more closely next month. Meanwhile, more details on 0386 49641.

• SHORTS •

Interface upgrade: Readers of Commodore User's June issue will remember our review of the Print-64 interface device. It looks as though the makers, Jansen Electronik, has taken heed of our criticisms because it's taken steps to rectify them. The device now comes with the power supply it lacked (connected to the cassette port) and a printed manual in addition to the original diskette. That means you should now be able to use the device with Epson printers. Details from Daniel Dunleavy on 091 281 1665.

SPEED FILE FOR WAFERDRIVES



Entrepo, the American company that manufactures the 'Waferdrives' for the Commodore 64 (reviewed last issue) has now released the first business software package to appear on wafers.

Called *Speed File*, it's a file manager package costing a mere £25. For the money, you get the System Manager wafer and a blank wafer on which you create a data file for consequent data storage. There's also a meaty 64-page ringbound manual.

Although wafers are serial devices, Speed File stores data in sequential files so records don't have to be of uniform length and information need not be entered in any particular order. Complex searching, the use of logical operators and a print function are also implemented. More details from Dean Electronics on 0344 885661.

1541 ALTERNATIVE



Enhancer 2000: more speed and more software for your money

Until now, alternative storage devices to the 1541 couldn't run floppy disks designed for that machine. That's all set to change with the US built, Enhancer 2000 disk drive.

The Enhancer is claimed not only to be totally 1541 compatible but will run at twice the speed due to a ROM that's just been developed. It should be more reliable too; the drive unit is a more sophisticated affair, built in Japan by Chinon. There's also an external power supply that helps to cut heat build-up in the drive.

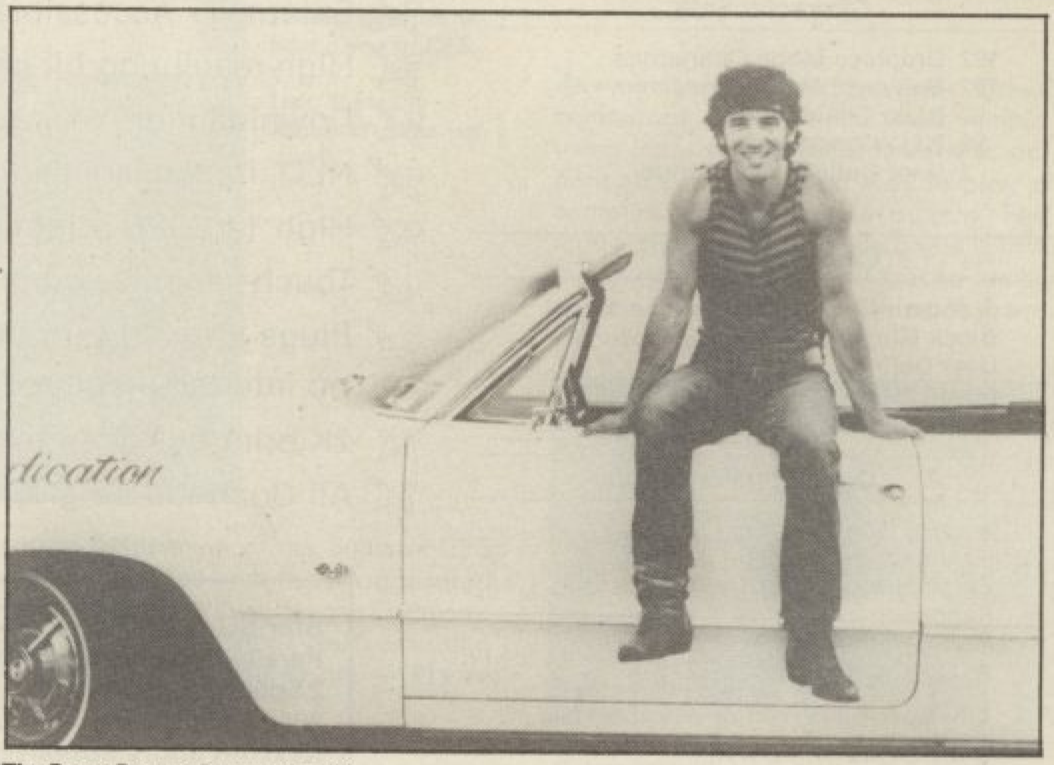
Robotics specialists, Commotion, is handling the Enhancer's UK distribution. According to Commotion boss, Tim Coote, the Enhancer will be packaged up with a free utility disk, 'productivity' software and vouchers to obtain discounts from UK software houses. The price? At around £180-£190, it's not much cheaper than the 1541 itself. Stay tuned for an in-depth review.

BORN IN THE USA

If you've been blasting Bruce Springsteen, Duran Duran, Van Halen or The Police, you might cringe at the thought of hearing them 'interpreted' by the Commodore 64's SID chip. Undaunted, American Hal Leonard Publishing has pursued this landslide of an idea, to produce a "*Hitware*" package for each of the above, complete with graphics and picture book.

Described as "computerised rock video" each disk [sorry, Americans don't like tape] contains ten tunes and 'color graphics' displays synchronised to the music. If the graphics don't thrill you, you can gloat at tasteful pics of Bruce or Simon, or Sting or Eddie Van H.

How do they sound? — "fantastic instrumental arrangements", says the blurb. We've not heard them yet but Hitware should be in the UK real soon. Dedicated Bruce fans better start running.



The Boss: Born to Run on the 64

SHORTS

Book for the Plus/4: Micro Press has just published, *Plus/4 Magic for Beginners* by Bill Bennett, which we reckon to be the first book dedicated soley to book-starved Plus/4 users. Before you start cheering, at £9.95, it's not much more than a Basic tutorial. Although the blurb tells you there's a section on the ROM software, it amounts to a mere handful of pages — perhaps there's no more to say about it. More details from Castle House on 8092 39606.

SHORTS

Software for school: If you're taking (or re-taking) O-Levels this year, why not try using your 64 to overcome the gloom of revision; Irish software house, School Software, has released Physics, Chemistry and Biology courses on the 64, each tape (turbo-loading) costing £7.95. And they claim it's the best educational software around — hm. Seems the age of video-swatting has arrived. More details from School Software, Meadowvale Estate, Raheen, Limerick, Ireland. □

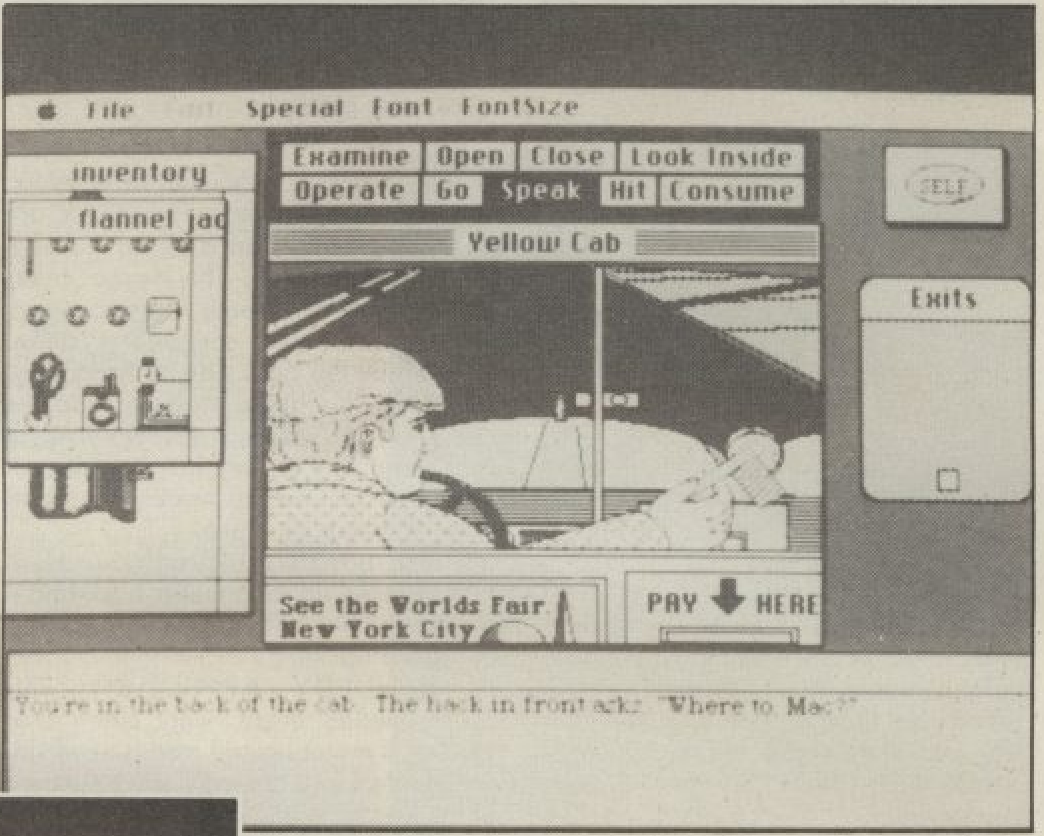
Summer Show Blues

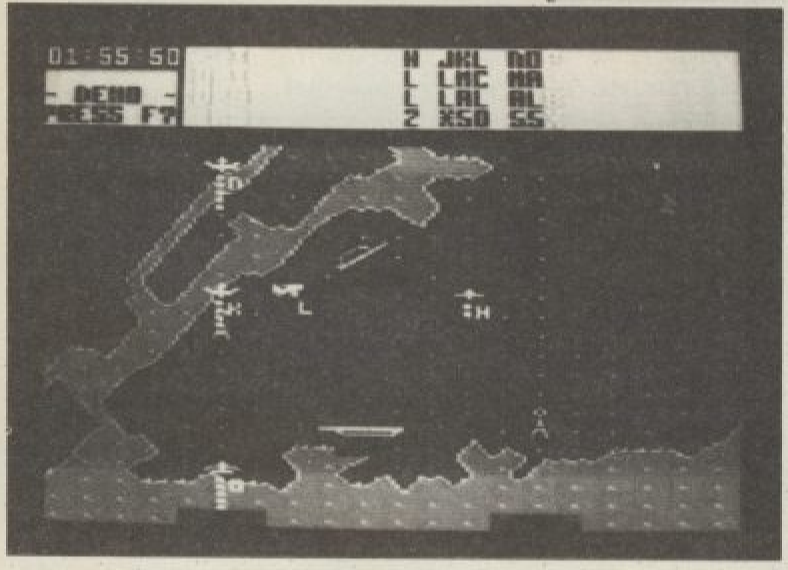
A special report from the Consumer Electronics Show in Chicago by Eugene Lacey

"Wot no Amiga?" was the disappointed verdict on June's Consumer Electronics Show held in Chicago at the beginning of June.

The much talked about new computer from Commodore with its now famous customised graphics chips could have been the one bright spot in an otherwise gloomy show.

Commodore however, were not playing. Instead their stand was dominated by C128s. Dozens of them — supporting a variety of new and interesting software. Notably, '**Jane**' — an integrated word processor, database, and graphics package. This really was impressive. Running in 128 mode it is icon-driven, can be controlled with joystick, mouse or keyboard — and really made the 128 look like a viable home-business computer.





Above: Deja Vu — best game at CES.

Left: Kennedy Approach talks you down.

But if Commodore were busy giving the hard sell on the 128 they couldn't stop everyone at the show talking about the computer they didn't want them to talk about — the Amiga.

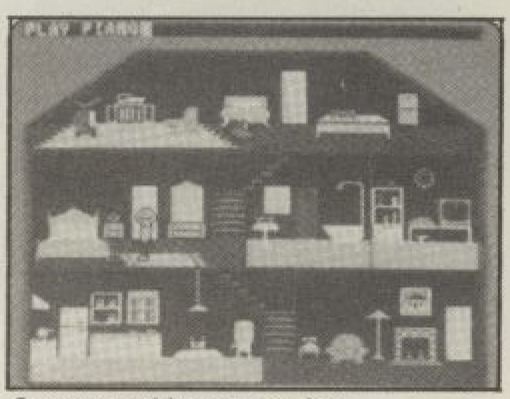
The truth of the matter is that even America's best software houses have now pushed the ageing 64 to its absolute limits. No surprise then that the show was characterised by sequels like *Beach Head II, Summer Games II,* and *Winter Games.* All safe, tried and tested game ideas. Nobody was showing anything new because there is nothing new they can do within the constraints of the current hardware.

Trip Hawkins, boss of *Electronic Arts,* described the Show to me as "the lull before the storm". This accurate assessment of the Summer CES seemed at odds with the exaggerated enthusiasm with which an Electronic Arts employee was demonstrating their latest 64 game to me — **Flyer Fox**.

Electronic Arts, Epyx, Broderbund, and even Activision (though to a lesser extent) failed to come up with anything really innovative at the Summer CES. So here's a sneak preview of the best games on show at CES.

● **DEJA VU:** This has to be the number one choice as it provides us with a glimpse of gaming in the future. This 1940's style whodunnit captures the atmosphere of a period Hollywood movie. The game runs on the Macintosh — though Mindscape are also converting it for the Amiga.

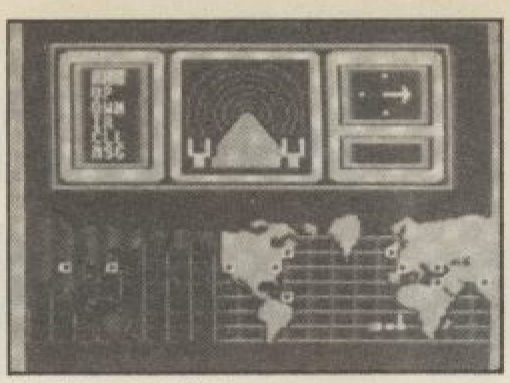
The player uses the Mac's mouse to pick items off the screen and put them down in their required positions. Other commands can also be implemented using icons that represent various actions. It's a high-speed way to play a complex adventure-style puzzle. The impressive thing about the game is that the graphics are so good that no atmosphere is lost by the absence of great tracts of descriptive text.



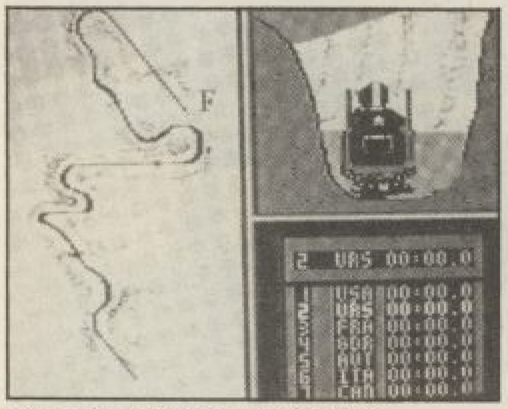
Computer with a room to let.

● **THERE IS SOMEONE LIVING IN MY COMPUTER:** Ghostbusters programmer David Crane intrigued many a visitor to the Activision stand with the claim in his latest game — *There's Someone Living In My Computer.* I can't tell you yet whether this is going to be a big hit or an almight flop. What I can say is that it's different. So different in fact that Activision's representatives at the show were infuriatingly vague about just what the dog, and little people are up to in the computer.

Adopting a suitably incredulous tone of voice they'd say to anyone who was stupid enough to stand and listen something like "the dog turned up last week . . . We don't know what he's there for yet". Play-wise all that is clear about the "game" so far is that you type in commands in text and some of these are obeyed. For example, the little man will take a shower, exercise, or cook a meal. Why? Watch this space.



Hackers go gaming.



Winter Games goes tobogganing.

● **WINTER GAMES:** Another sports simulation par excellence from Epyx, the undisputed World leaders in producing this type of game. Remember they were the people who did *Summer Games* last year? *Winter Games* knocks spots off any sports game I've seen before. Events like the tobogan, Ice Skating, and Ski Jump are beautiful to look at and even more fun to play. Sports game enthusiasts are going to go overboard about this one.

● **THE HACKER:** The Hacker takes up the wellworn theme of breaking into huge protected, computer systems. To keep on the right side of the law the hacker in this game stumbles into the computer by accident (if only it were that easy) and merely has to work out whose system he has hooked into and what is going on there.

This is basically a graphics adventure dressed up as a mega-hack and it should sell like hot cakes. Now you too can be a hacker?

● **KENNEDY APPROACH:** This game defies those who claim that speech is merely a frill and is never incorporated into the main play element of the game. Without speech, Kennedy Approach wouldn't be much of a game. As the air traffic controller responsible for six major American airports you have to listen to instructions from the pilots, clear runways, and talk them down safely. The first every genuine speech game for the 64.

The Summer CES reflected the uncertain state of the computer and software industry in the States. Only three hardware companies exhibited — Commodore, Amstrad, and Atari. Software houses were also pretty thin on the gound. In total the show was a lot smaller than the monster event it has been in recent years. Smaller, for example, than our own Personal Computer World Show.

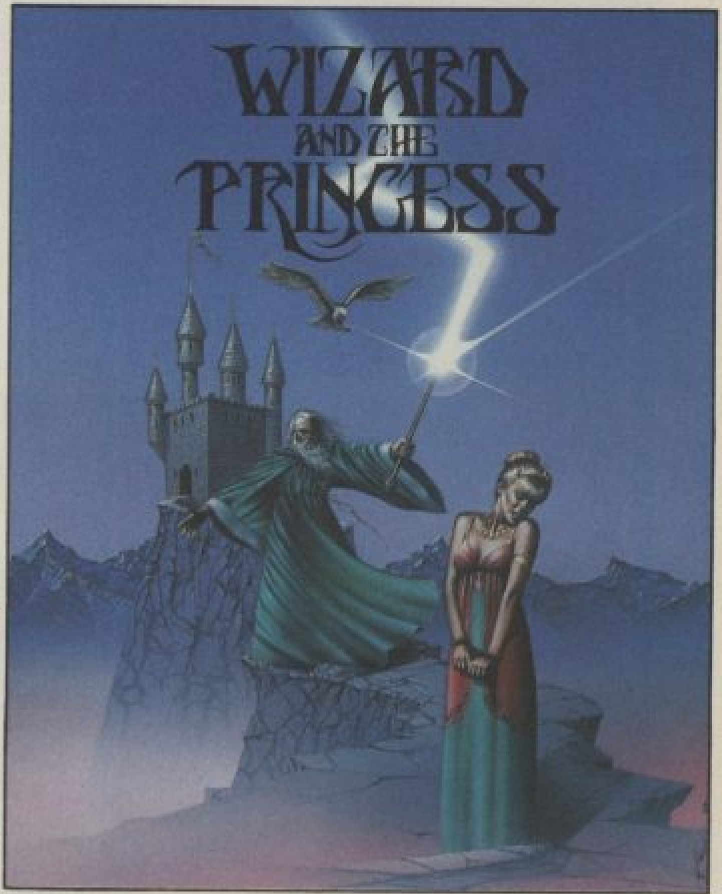
It would be wrong to assume that the picture was entirely bleak though. Many of the companies have been opting for other, computer dedicated shows, rather than being lumped in with, and to a certain extent over shadowed by, the hi-fi, compact disks, and pocket televisions in CES's main hall. One such company is Infocom — America's most profitable games software house in recent years. A spokesman told me "We no longer see the CES show as a major plank in our marketing strategy". Sad words, indeed.

BORED WITH SHOOT 'EM UP SPACE INVADERS?

then it's time to

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THE WIZARD AND THE PRINCESS

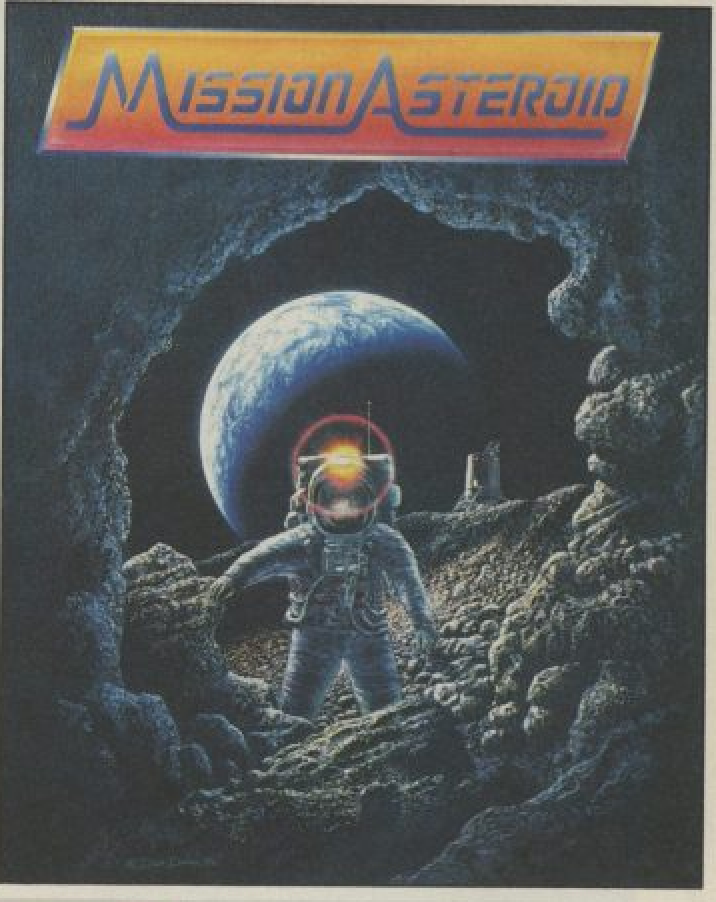
Become the hearty and steadfast adventurer who rescues the fair princess from the dreadful wizard, Harlin. He has taken her to his towering castle beyond the great mountains. You must outwit and outmanoeuvre the mystical power of the wizard which has grown dark and potent through time. Begin your adventure in the village of Serinia, but take heed, everything is not as it may appear. . .

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TERRORMOLINOS!

Melbourne House's latest, exclusively previewed

Airport gone on strike? Lost yer passport and yer dosh? Hotel looks like a high-rise car park? Could be worse — you could be playing *Terrormolinos,* Melbourne House's latest and wackiest adventure. Here it is, previewed exclusively, just in time for those rainy summer days by the telly.

All the jokes about the disastrous Spanish package tour are crammed into Terrormolinos.

The unfinished hotel, the sun burn, the problems at the airport — they are all here, plus a few new ones thrown in as well.

The game opens in a suitably exotic location — Slough. The aim is to get away from your two-bedroomed semi with its smells of "cabbage and damp wellingtons" for two weeks in the sun, staying at the Hotel Excrucio.

To prove that you survived your two week package tour you have to bring back ten holiday snaps.

Unlike Hampstead, Terrormolinos has been completely reprogrammed from the Leever Jones Quilled original.

Graphic screens have been added which appear when you take a successful snap shot or make a fatal error.



The screen shots featured on this page are pre-production screens taking up about 5K each. The final graphics will use a lot less memory than this though Melbourne House are confident of retaining all of the "mood" and most of the detail of the above.

Among the many perils, you risk being gored by a bull, buried up to your neck in sand, being poisoned, dying of heatstroke, losing an argument with a shark and being run over by a Euro-juggernaut.

Before you get to Terrormolinos there is quite a bit of adventure to get through. You've got to find everything you'll need for your hols, some of which is hidden deviously around the house, pack, round up Beryl and the kids, and get a taxi to the airport.

If you take too long on your last minute preparations the taxi driver will get fed up and drive off.



Talking about the taxi driver, I can't resist giving you just one tip. Don't try to take the step ladder on holiday with you. If you do this you will get this comment from the cabbie: "No way are you coming in my cab with that bleedin' step ladder".

The snap shots also take a bit of working out. You need ten and you've only got twelve exposures on your roll of film so you can only afford two duds.

The successful adventurer will choose the right places to take the pics. Therefore, quite a bit of exploring is advisable, perhaps even taking advantage of some of the sightseeing tours laid on at no extra charge by Kwikhol Tours.

When you take a snap it develops on-screen in front of you Polaroid-fashion. These snaps can then be reviewed one after another by typing in "Review Photos".

Not to be out-done by other programmers with impressive sounding names for their techniques like "landscaping" or "primary imbalance", Leever and Jones are calling the snap shot technique "Saucivision".

The game uses the percentage penetration scoring system — which is standard on most Melbourne House adventures.

We are looking forward to seeing the final version of Terrormolinos. Judging from the pre-production copy used for this preview it already looks like being a midsummer, silly season sensation.

Commodore User has twenty copies of the game to give away in an Exclusive Terrormolinos competition.

All you have to do is fill in the form below and tell us in not more than fifty words what you think would be a good, humorous subject for an adventure, and why.

The best suggestion will be presented with a copy of Terrormolinos by the authors at a slap-up lunch in London's best Spanish restaurant.



Name ....

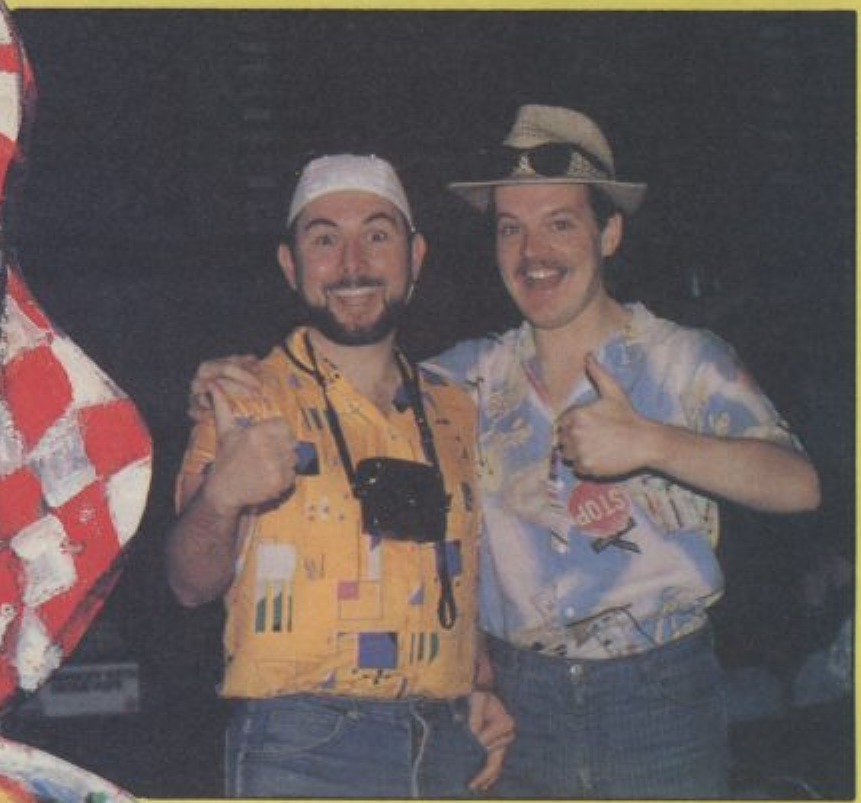
Address..

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Entries should be sent to: Terrormolinos Competition, Commodore User, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. Please write out your suggestion on a separate piece of paper. Entries must reach us no later than August 26.





The Partnership — Pete and Trev.

"Mad", "insane", "should be locked up" are the first phrases that spring to mind when you try to describe Messrs Leever and Jones, authors of the social climbers' adventure — Hampstead and, shortly to be released — Terrormolinos.

Spend an evening in the pub with the Hampstead boys and it is easy to see why.

"I think computers are boring," says Peter Jones, adamantly.

"Adventures are OK though Pete," pipes up Trevor, the double act now getting into full swing.

"Yeah, I suppose so. I can't handle Sherlock though. Why can't I solve Sherlock, Trevor?"

"Two reasons, Peter. One, you are not clever enough and secondly, I've got the computer."

The computer referred to is jointly owned, as is their copy of The Quill, the development system used by "the partnership" to write all of their games.

Leever and Jones make no claims about state of the art programming techniques. None of the buzz words like "artificial intelligence" or "real time interaction" that usually pour forth from adventure writers with ease.

"It's the gags that sell the games," says Lever, summing up the partnership's strategy for selling software.

Leever and Jones, or 'Pete and Trev' as they prefer to be called, can afford to make the odd joke at the expense of programmers. "They all wear anoraks and have spots" — as a programmer is the last thing that either member of the partnership would want to be referred to as.

Pete and Trev would prefer to see themselves as multi-media entertainers.

Hampstead and Terrormolinos aside, they have been involved in several "creative projects" since they met at Oxford University, in the '70s.

Most recently these projects have been a pop group called the Dave, a comedy act called the Three Ronnies, and a satirical documentary to promote the city of Slough called, hilariously, "Slough Now".

Devotees of fashionable London wine bars may spot the Three Ronnies in cabaret this summer.

Having fingers in so many entertainment pies means that the duo need a constant stream of ideas to keep them going. An evening in the pub, a few glasses of Youngs bitter, and the likely lads are away — spewing out ideas like smoke from a factory.

"Write that one down," says Trev, nudging his girlfriend after Pete had just come up with an idea for a sketch based on the saying "poetic licence" which involves a policeman questioning a poet about reciting poetry in a public place without a licence.

All of this made it pretty difficult for the editor of this esteemed organ to get any sense out of the partnership. My one hope was this chat about ideas — so I grasped it with both hands. Where did the idea for Terrormolinos come from?

"I was cruising the Caribbean in the ocean-going yacht I bought from my Hampstead royalties when I thought 'I'll go to Benidorm' . . . while I was there I had the idea for Terrormolinos," says Trev.

Not a word of truth of course. He actually went courtesy of Intasun, on a seven-day package deal, and it wasn't Benidorm it was the Costa Brava.

By now we are in a restaurant and it is time to pay. Trev takes from his wallet a Donor Card and places it on top of the bill and hands it to the waitress.

Finally she persuades him that his Access card may be a better way to pay — but the smiles are quickly gone when she explains that she will have to phone up to check if his credit limit will cover the bill.

"I'm not sure if I can cover it, I've just paid for my holiday."

"Torremolinos?" I ask. "You must be joking, Greece."

JUMP JET

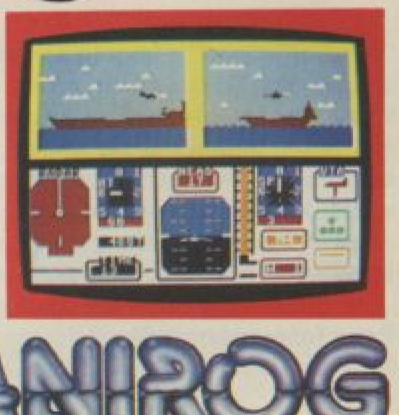


JUMP JET AVAILABLE FOR

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BBC MODEL B/ELECTRON	£11.95	£9.95
AMSTRAD	£13.95	£9.95
CBM 64	£11.95	£9.95
VIC 20 16K		£7.95
C16		£7.95

Written by
Vaughan Dow
Jump Jet Pilot





Every pilot has the dream of flying one of these unique and complex fighting machines. Here is your chance to do what few pilots have the privilege to try.
Depending on your skill, confidence and courage, you have the choice of remaining near the landing pad, learning to hover and land, or venturing higher to practise your approaches.
When you think you have mastered these, then accelerate the Jump Jet into an attack fighter. Use the radar and range finder to seek and destroy the enemy, by launching heat-seeking air-to-air missiles. Beware! His radar and missile systems are as good as yours. Reckless pursuit is ill-advised: you must maintain a fuel level that will enable you to relocate and return to the aircraft carrier, executing the skills you have learned to achieve a successful landing.
You are now ready to proceed to the next skill level to face additional hazards, such as unpredictable swell and treacherous cross-winds.
Be warned, this program is not a toy or game. You will need to co-ordinate your hands, eyes and mind to successfully complete each mission. Do not hope to achieve in a short time that which took the author three years to learn as a Jump Jet pilot, and over a year to record on this computer program.

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Hot Shots!



by Mike Pattenden

Well I'm in a holiday mood this issue. So I'm not going to be nasty to anybody. Not much I'm not.

I've won my first accolade, I'm proud to say. **Jeff Minter** has made me wally of the month in his wacky newsletter 'The Nature of the Beast' because I slagged off his *Mama Llama* game. Apparently if Jeff had his way reviewers wouldn't really be allowed to express an opinion, especially when it came to reviewing his stuff because it's so far advanced (like psychedelic rock, apparently). Well, all I can say is I have to recommend games that cost up to a tenner and I don't really feel I can recommend something that is an utter piece of self-indulgence on the part of the programmer. I don't think I'm alone in thinking that Jeff has strayed away from doing what he's best at . . .

Whilst I'm on the subject of people not getting on, I was chatting to Virgin programmer **Charles Goodwin** the other day and he let on that he didn't exactly see eye to eye with Legend supremo **John Peel**. Apparently *The Great Space Race* flop is a great source of amusement to Charles, particularly so because he reckons Peel got the idea for it from a thought that he voiced in a telephone conversation once. There's good news coming for all you poor Space Race suckers. Legend feels so bad about it that they're offering the game's owners the chance to purchase its new game *Komplex* at half price. Apparently Legend lost £200,000 on the Great Space Flop, so who's going to be kind enough to give their money charitably? Not disgruntled Space Race owners surely. Once bitten . . .

More disasters: Ocean man Paul Finnegan is tearing out his hair at the moment because, not one, but two of his programmers have broken their arms. This explains the mysterious absence of *Daley Thompson's Supertest* and *Street Hawk* from the shelves. Has joystick waggling become a health hazard? If the games aren't finished soon Paul's threatening more breakages . . .

Disaster almost struck (ha!) CRL when a bolt of lightning hit their offices during the bad weather spell recently. Apparently they were playing around with the *Rocky Horror Show* at the time . . .

Over at Anirog's software retailers, manager Bob Williams was quietly adding up the day's figures when a gentleman walked into the shop. Bob paid no attention at the time. Now Bob, to put it politely (and you'll see why I've suddenly found my manners in a minute) is a little thin on top. So he's crouched there poring over his figures when there's a hiss and he gets a sudden sensation of damp on his pate. The guy has sprayed furniture polish on his shiny patch! Bob's retribution was swift and final and the jester found himself thrown into the road . . .



Curry'd Frank'n'Furter

Back to Virgin for another snippet. A while ago the company wanted some hardware for their programmers — a new 64, couple of disk drives, monitor, stuff like that — so they phoned up good old Commodore. "Why don't you become dealers for us and buy at a discount," said the helpful sales souls. We only want a bit of gear Virgin explained gently. "No, honest it makes sense, we'll send you all the information and forms." Days later the bumph arrives and a staggered Jeremy Cooke learns that he needs to fork out orders for £5,000 worth of stuff before he can become a dealer and reap all the promised benefits. Virgin went and bought it all round the corner . . .

I'm anxious to hear from anybody out there with tales to tell about good ol' Commodore. I just know there's loads of you . . .

Well I've done my bit for another month so I'm heading for the sun, the sand, the sea, the surf, and the beach parties. I'm off to Cornwall. Anybody who spots me walking along the front and taps me on the shoulder with a rolled up copy of *Commodore User* and says 'you're that gorgeous hunk from Hotshots, I claim my due' will win the chance to buy me a pint. See you down there . . .



On yer bike, Jeff

● HOT SHOTS COMPETITION ●

Virgin's Gang of Five attempt an 'incognito' act in anticipation of certain Hotshots exclusive revelations. Think of a funnier explanation (not too difficult) and win this month's Screen Star games. Entries to: Carrier Bag Competition, Commodore User, 30-32 Farringdon Lane, London EC1R 3AU.



HINTS 'N' TI

This month's Hotshots is a special Hints and Tips issue. We've collected together loads of clues, pokes, cheats and advice on your favourite games all sent to us by you, our clued-up games-mad readers. All of those mentioned are winners of our June *Airwolf* competition.

GHOSTBUSTERS

This is still an immensely popular game judging by the amount of correspondence we get from you on it. Lots of you gave us tips for the game so here's a selection:

ACCOUNTS: For a million dollars type in: NO NAME, ACCOUNT NUMBER: 458.

SLIMING: Most people tend to use two men, if this is the case drop the trap in the centre of the screen and move the first man to the left. Move the second man directly over the first. They should both be pointing away from the trap. Now activate. You can use one man by immobolising the first by pointing him away to the left of the screen and using the second to shoo the ghost over the trap.

MARSHMALLOWING: You get a marshmallow man for every 1,000 points after 5,000. When you get an alert press runstop to freeze him, then press it again, followed by B for bait. Only hit it once or you use up your bait.

TEMPLE OF ZUUL: Sneaking past the Marshmallow man into the temple at the end is hard to time. Inch your man along until he is exactly in line with the entrance. Wait until the MM bounces to the right, then as he bounces back push the joystick forward and your man will slip clean through his legs and in. Do the same with the second man to save the city. Be warned Ghostbusters only allows you to score a maximum of 999,999!

Tips supplied by Ariya Gunatunga, Letchworth, Herts, Lee Dudson of Caerphilly, Tony Rice, Polokshields, Glasgow, and Chris Bray from Stafford.

CHEATS

Everybody loves to cheat. Why get killed off when you can be immortal? Save yourself the frustration and the grief of passing away regularly with these classic cheats.

ZAXXON: An oldie but a goldie. Type in RED on the title screen for infinite lives.

RAID OVER MOSCOW: There's a knack to getting your fighters out the hangar. If it looks like you're going to crash, tap the space bar to take you out the hangar. Tap it again and you're back inside ready for another try.

TROLLIE WALLIE: During the game hit the back arrow key and keys MUG. Press return to exit.

BOOTY: Hold down keys KEVIN at the same time on the title screen. Taking your man down to the bottom of the screen and hitting the back arrow keys lets you see all the screens.

REVENGE OF THE MUTANT CAMELS: Type in the word GOATS after the game has loaded and your options have been chosen. Skip through screens by hitting any keys (avoid command keys).

MOTOR MANIA: A game as old as the hills. Slow down at a crossroad as much as possible without stopping. Pull over to the left of the screen and tap the joystick gently. The car can be made to disappear into the border. You are now free to accelerate away from the 64 to build up an enormous score.

DALEY THOMPSON'S DECATHLON: Jump over the bar until it gets too high. Then jump under to qualify.

MATRIX: Press SHIFT, CONTROL, RUNSTOP AND COMMODORE KEY together to move onto the next stage.

STUNTBIKE: Press key 3 and you skip levels.

BEACH-HEAD: For monster scores save your fire power for when the reconnaissance plane gets to the middle of the screen, keep your finger on the fire button and pump shells into the ball of flame. You score 2,000 points a hit until it disappears. On the third screen the difference between the angles of elevation is constant. After sinking the carrier the angles left to right are +16, +8, +22, −28.

SPY vs SPY

You need to be extra sneaky to play *Spy vs Spy*, but a couple of readers have sent in some really dirty tricks for getting one over on the computer.

Sometimes the computer Spy will try to get through a door that you are blocking from the other side. Make sure you don't move and it will struggle without success to get through. This is an excellent opportunity to use the time bomb. Start the counter, wait for ten seconds and run to another door, trying to get him to choose it. Block in the same way he will now be in the room with the bomb. Nasty!

Go to the room with the airport door and booby trap all the doors. The computer spy won't come here until he has collected all the objects. When he comes to this one he gets killed allowing you to go back into the room and get the briefcase and leave by the airport door. Despicable!

Stephen Donnelly of Dublin and Dean Longman from Wigan, Lancashire.

SNIPPETS

Here's a few clues to give you the edge in these games:

SPYHUNTER: To run up a good score without being attacked once the car has left the van stick to the right-hand side of the screen and manoeuvre the car onto the grass. Push the joystick forward gently until the car begins to move. Keeping the joystick to the right the car will begin to wobble and as you move it forward your score will rise. You can travel like this by the crash barrier and also over the broken bridge!

Wayne Byrom, Manchester.

BOUNTY BOB STRIKES BACK: On level I after collecting the flower pot press F7 to warp to level 4. On level 5 after collecting the coffee pot press 8 then F7 to warp to level 8.

Martin Evans, Sidcup, Kent.

ELITE: If pirate ships attack you and fire a missile, respond by targetting a missile on one of them. All pirate ships have ECM systems so one of the group will ECM your missile and their own at the same time.

Ian Sharples, Cheadle Hume in Cheshire.

PITSTOP II: At the start of the race when playing the computer, ram its car until both your tyres burst. The compter has to change its offside tyre whilst you only have to change your nearside one. This gives you a headstart.

John Power, Dungarvan, Eire.

ROCKY HORROR SHOW: When freezer temperature reaches about −10 go to the freezer and press the lit button (there are 3 at the top of different ladders in order to reactivate the freezer. Wait till Eddie leaves first and do not press the farleft or he'll come back and park at the bottom of the ladder.

Paul Serbert, Harrogate, N. Yorkshire.

IMPOSSIBLE MISSION: Lure the black orb so that it hits a robot to destroy it. When you've collected all 36 pieces of the puzzle go and find the control room. Then go and stand in the lift and put the pieces together. This saves time at the end because you don't have to chase around madly.

Paul Morton from Enfield.

TIPS SPECIAL!

SIR ARTHUR PENDRAGON

Sir Arthur is constantly getting into scrapes so here's some tips to help him through his two adventures:

ENTOMBED

There are a couple of particularly hard rooms which may well leave your Arthur entombed for good.

Level 5: In the room of gongs you must strike each one in the correct order with your whip. A musical note means you have it in the right order, and the right order is yellow, blue, pink, green and white. The final gong lifts up and you have the missing torch.

In the room of lava pools you must walk through in the right order. The first and second left to right make you visible. Using your whip to guide you walk into the third one. Still using your whip go through the first and you become visible once more. Walk through the second pool again and you're onto the next level.

You cannot see the final room until you have all the scrolls.

Supplied by Andy Nicholls, Spalding, Lincolnshire and Kevin Young from Blyth, Northumberland.

STAFF OF KARNATH

Here's a quick spell guide to use when working your way around the castle:

Forthrin—Dragons, ghosts, bats, Mad Monk, knights, vampire, flying axe, frog, baby troll, witch.
Ibrahim—Big troll, green spider, pot of pansies
Throbin — Magic carpet.
Umphalus — Shield
Stoly — Force field.
Yerobas — Skeleton.
Knossus — Python.
Baracata — The Obelisk.
Menhir — The Staff.
Aeulus — The Flames.

In the Timeless Room to get the piece of pentagle over the bed, hit the carpet with the Throbin spell and step onto it. It shakes and levitates.

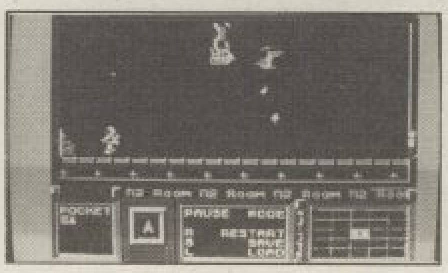
To get the piece of pentagle in the laundry room go to the Upper Guard Room and shoot the cross with the Throbin spell to make it turn blue. Hit it again with the Unphalus spell to make it fall down. Take it to the South Tower Lower and the vampire lets you into the Laundry room. Rush in and out as fast as possible before the vampire gets you.

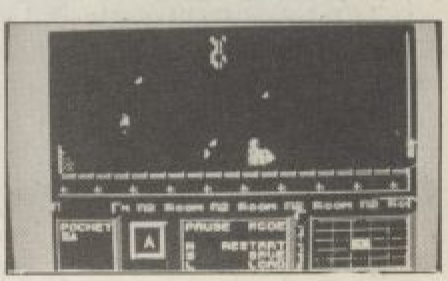
Wait in the Waiting Room. Watch the mantlepiece.

Wait to the left-hand side of the Morning room and, if fired repeatedly the Ibrahim spell will knock the flower pot off the table.

Supplied by R. Briar from County Antrim, N. Ireland.
R. Clough of Bridlington, N. Humberside.

STRANGELOOP





Here's a map and seven tips for all sent to us by Paul Gooch of Halstead Essex.

MAP KEY

O = Object	
C = Computer	
P = Pickpockets	;X0
V = Vendromat	;Y7
S = Start	;M2
D = Doctors	;C5
CR = Control Room	;F2
JB = Jet Bike	;N2
UR = Unhappy Robot	;V8
HR = Hello Reactor	;C7
RR = Rusting Robot	;R4
WG = Welding Gear	;E9
ES = Eye Shields	;E3
TB = Time Bomb	;L8
RM = Robot Manual	;B7
GC = Geiger Counter	;Q2
RH = Red Herring	;09
5cc = 5 credit coin	;P2
PC = Pleasure Circuit	;U6
Meteor Damage	;K9
Danger	;L9
Low Pressure	;L8
Hole in ship to outer space	;M9
Very Low Pressure	;M8
Go no further	;N8

1) To get the jet bike, N2, shoot the object moving left to right. It's best to ricochet it off the block.
2) To make unhappy robot happy, V8, give it the pleasure circuit U6, and get the Bupa card.
3) Give Bupa card to doctors, C5 and get the circuit board.
4) Give vendromat, Y7, 5 credit coin, P2, and get fuse and 1 credit coin.
5) To get 5 credit coin go through P1, P2, then move to the far right. The coin will then bounce up to the top and you move quickly to the left to get it.
6) All the objects in the ship have to be used in order to get into the control room, F2.
7) Give the cassette of Sorcery to the machine at A6.

0	1	2	3	4	5	6	7	8	9	
C			0		3.0					A
0	0						R.M.			B
	C	0			D		H.R.			C
0		0			3.0	C				D
	C.O.		E.S.		0				W.G.	E
		C.R.					0			F
C						0	C.O.			G
	0	0							C	H
								0	0	I
C								0		J
										K
										L
		S			20	0	0			M
		J.B.		C						N
				0			0	0	R.H.	O
		5CC	C	0						P
		G.C.		C				0		Q
			0	R.R	0	0	C			R
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Games Plus Games Plus Games Plus Games Plus Games

• THE • HAPPY • HACKER •

HUGO GOES HACKING

This is the book that started it all, I suppose. Hacking first hit the headlines towards the end of last year, when person or persons unknown managed to gain access to the Duke of Edinburgh's account on Prestel. National newspapers decided that this was a story worth following and articles along the lines of "Just how safe are our computer networks" began to appear like they were going out of fashion.

It was around this time that someone calling himself Hugo Cornwall was approached by Century Publications to write a Hacker's Handbook. Hugo Cornwall isn't his real name, by the way. I don't know where the Hugo bit comes from, but Cornwall is to do with Pirates (of Penzance, geddit?).

Packed into this book's 150-odd pages is a wealth of information for the would-be hacker. First, the expected chapter about what a hacker is, what makes him do it, and how the word "hacker" originated.

Then comes the juicy stuff, starting with a mention of one of the first TV hacks in this country. Remember, if you will, the first Micro Live programme on BBC1. It was a special hour-long edition to clear up after the first broadcast of The Computer Programme. The producer decided that a live demonstration of Telecom Gold would be fun, but he seemed to underestimate a hacker's desire for national fame. The password for the program was BBC — not impossible to guess. And when the presenter logged on, a small but now famous rhyme was waiting for him.

There are some interesting sample printouts from various hacking bulletin boards in the book, including a fairly comprehensive list of more phone numbers. Problem is, though, they're all in the States. There's a good section on the inside of Prestel, and a useful list of some commonly-used passwords.

This book is packed full of information. It's not just a list of the author's exploits — it actually says what he did and how it was done. For someone who really wants to understand the world of the hacker, this really lives up to its title. Good value, and highly recommended.

• The Hacker's Handbook
• by Hugo Cornwall
• Century Communications
Portland House
12-13 Greek Street
London W1
• £4.95
• Recommended

THE INNER CIRCLE

In 1981, a group of around fifteen top American teenage hackers formed themselves into a club called *The Inner Circle*. Bill Landreth, one of the founder members, has now retired at the grand old age of nineteen. His decision was partly voluntary and partly suggested by the FBI. He was arrested and subsequently convicted for hacking, under the offence of wire fraud.



Out Of The Inner Circle is Bill Landreth's attempt at telling all. His book is the top selling computer book in the States at the moment and is riding high in the national non-fiction charts.

The micro enthusiast interested in becoming a hacker will probably be rather disappointed after ploughing through the 230 pages of this book, though. True, it's the story of Bill's (alias The Cracker's) life behind the keyboard, but there's a shortage of hard facts.

Unlike the other books mentioned on this page, this one has no illustrations or tables. It's all solid chunks of words. You will certainly learn about computers, and how a hacker thinks, but little that will help you in your quest to emulate the author. And let's face it, that's what most people will buy this book for.

The best part for me were three paragraphs comprising the Inner Circle's code of conduct.

If you are actually in charge of a computer network, you may appreciate the advice on how to keep the system secure. For the average reader it's a vicarious way of getting the hacker's experience.

• Out Of The Inner Circle
• Bill Landreth
• Microsoft Press
available from Penguin Books stockists
• £8.95
• Reasonable

NETWORKS REVEALED

I'd suggest that this offering be renamed The Networks Handbook. Just about every system in the UK gets a mention, but little more.

The main advantage here is that the book is specific to the Commodore 64, concentrating mainly on systems that are available to the 64-and-modem owner.

There are details on many modems that you can use, including the Pace Nightingale, Buzzbox, Miracle Technology, Tandata and Telemod 3. Unfortunately, not all the information is as up to date as it could be. The Protek modem, for example, is no longer.

The section on Bulletin Boards is good and a list of telephone numbers is included, though you'll almost certainly have most of them already.

Teletext — that's Ceefax and Oracle — also get a mention, though the systems have not been penetrated by hackers up till now. You don't have an individual account on a Teletext system, so there's no way that you can access someone else's area. However, updating of the system can be done via a modem and I await the day when someone manages to change the pages of Ceefax undetected.

Prestel is probably the most widely known network around, and is fairly well explained. Homelink, the world's first home-operated bank/building society comes out quite well.

As a textbook on communications and hacking, this is a reasonable effort. □

• The Hacker's Handbook
• Geoff Wheelwright and Ian Scales
• Longman
Longman House
Burnt Hill
Harlow, Essex
• £5.95
• Good

GUTS. STRENGTH. SPEED. THE WILL TO WIN.

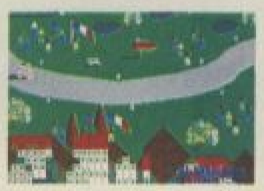
You'll need 'em all.





The world's no. 1 cycle race deserves the world's no. 1 sports software. Here it is. The fabulous Tour de France.

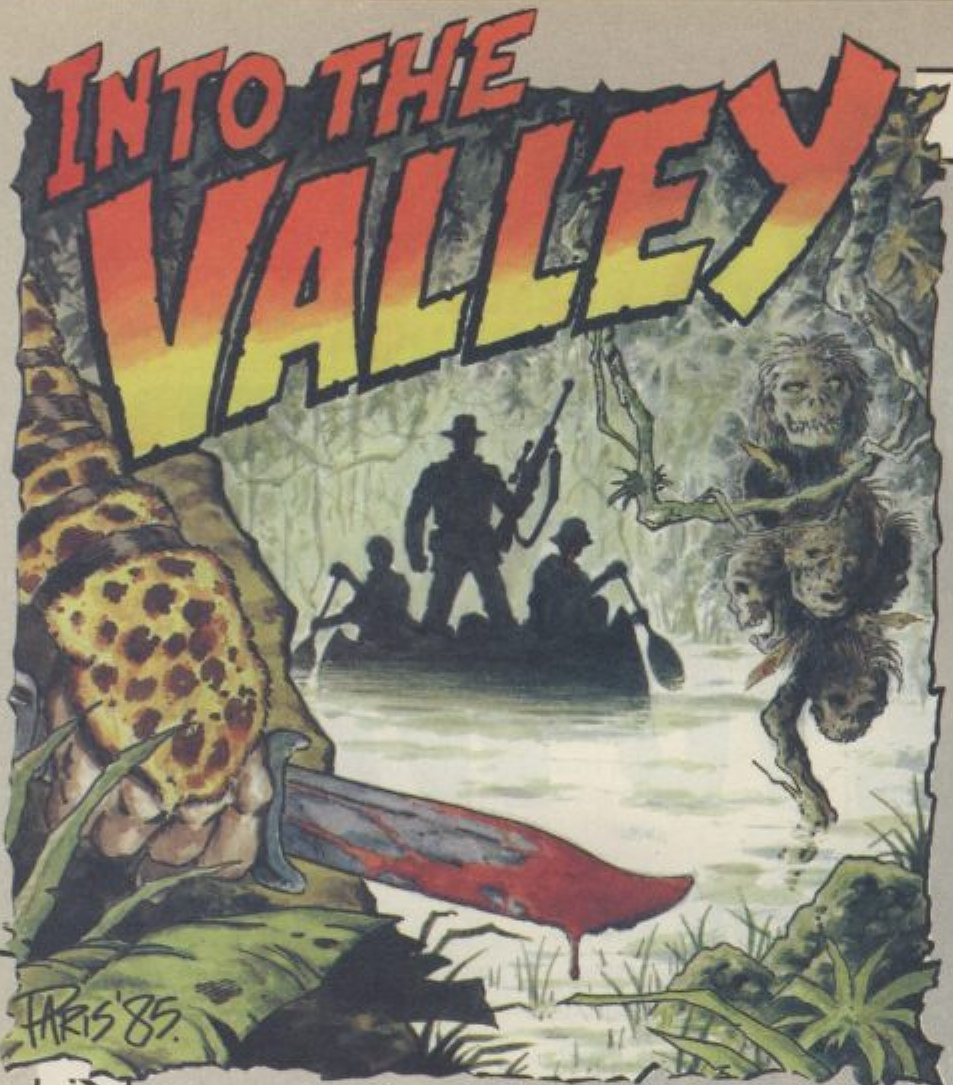
Strive to win as many of the 16 stages as you can to win the most famous jersey in the world. The yellow jersey.



Just like our block-busting Decathlon, Tour de France gives you the chance to combine joystick skills with sheer physical strength and mental tenacity to win through to become the outright winner.

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Fancy yourself as a quick-fire sleuth, or maybe a British agent with the nounce to defuse nuclear bombs? Looks like this month's crop of adventures are turning their noses up at the classic D and D scenario — but there's plenty of brain tangling to get to grips with.



Secret documents in The Fourth Protocol: Watergate was never like this

ADVENTURE NEWS • ADVENTURE NEWS •

• **The launch onto the UK market** of low-cost image digitisers for the 64 (and 128 compatible) is certain to herald a new era in both commercial and home-written graphic adventures. The **Print Technik Digitiser** marketed by CRL is capable of reproducing pictures from the images produced by a video camera or recorder.

As CRL spokesman David Crosweller explained to the *Valley*, the initial result is a picture made up from four shades of grey resembling a black and white photograph which can be retouched using a lightpen or graphics tablet and further enhanced by replacing each and every shade with any of sixteen colours. The final version can be Saved to disk.

This technology obviously lends itself to the development of graphic adventures making a library of detailed and realistic screens — perhaps on the flip side of the disk, like the new version of The Hobbit — and digitisers will doubtless appeal to adventure authors who have in the past shied away from the lengthy chore of creating hi-res graphics.

The CRL product is priced at £149.95 and will debut at next month's Personal Computer World Show in London.

• **A micro adventure** based on Douglas Adams' cultish hit *The Hitchhiker's Guide to the Galaxy* has won the W H Smith Game of the Year Award — but Infocom's £30 disk import is currently the only version available for the 64, and Commodore UK have scratched plans to release a disk version for the Plus/4.

• **Apparently inexhaustible Brian Howarth**, whose brilliant *Gremlins* is one of Adventure International's biggest-ever hits this side of the pond — having knocked off a trio of welcomed C16 Mysterious Adventure conversions in his lunch break — is now hard at work crafting an all-new, animated graphic version of *Midwinter*, due out later this year.

• **Can we work it out?** The Fab Four (meaning, for the benefit of the sub-20s, The Beatles and not the founders of the SDP), flower power, kaftans and joss sticks make an evocative reappearance in *Beatle Quest*, a Quill-aided text adventure mastered by Garry Marsh and just out on the Level 9 label at £9.95. Full review next month. Hang in there.

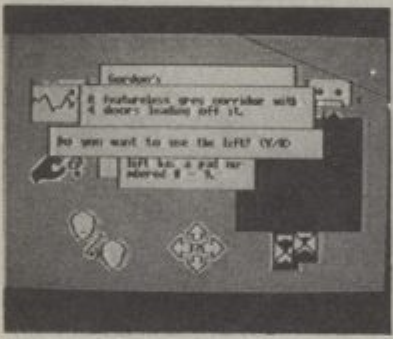
• **British horror author** James Herbert will follow in the footsteps of Arthur C Clarke, Frederick Forsyth and other contemporary authors whose bestsellers have gone micro when he and his revengeful rodents try to gnaw their way into adventurers' affections with *Rats*, coded by Fiveways and due out from Hodder & Stoughton this autumn.

• **Anirog's chirpy Clare Hall** has vowed to the *Valley* that the mammoth *Soul Gem of Martek* still is on the stocks for release by Christmas. Up for a place in the heavyweight adventure book of records, SGM runs to 150K and has to be loaded in six parts — but is still expected to sport a value-for-money price tag of £9.95.

• **Also bubbling under** is the eagerly-awaited 64 version of *The Illustrator*, a menu-driven marvel for incorporating full-colour, hi-res graphics into Quill-generated adventures. Gilsoft's Tim Gilberts has promised the *Valley* an early hands-on test, so watch this column for exclusive sample screen shots plus a chance to win one of three copies of *The Illustrator* in an easy-to-enter competition.

• **Level 9 follow up** the success of *Emerald Isle* with another title aimed at the newer adventurer. *Red Moon* combines a 200-location graphics quest with role-playing features that allow the player to cast spells as well as enter more conventional inputs.

• **US Gold spin-off** All-American Adventures have at last released *Exodus: Ultima III*, the first in a series of arcade-cum-graphic adventures — but like others to follow, it's only available on disk at the wallet-numbing price of £19.95. Read next month's *Valley* to learn whether it's worth it.



First-rate mixture of text and graphics

Playing Protocol

There's yer actual graphic adventures, yer arcade adventures, and yer icon-strategy games. Just to confuse the crossover even more, Hutchinson (or to be precise, programmers Electronic Pencil Company) have come up with *The Fourth Protocol*, an episodic stroll through the labyrinths of modern espionage based loosely on Frederick Forsyth's bestseller. It wears a price tag of £12.95, or £15.95 on disk.

In the first part of the game, you're confronted with a screen of icons which allow you access to MI5's central computer (no big deal, judging by some recent events), check files, use three VDUs, make phone calls and complete other tasks in order to build up your knowledge of Plan Aurora — a scheme by them danged commie bedwetters to transmute the good old U of K into so much fallout fodder. Cheerful theme for a jolly adventure, eh?

As true Brit agent John Preston, your mission is to unravel the plot, survive an arcade interval (why do they do it?), and finally apply the gems of knowledge you've acquired to the tricky business of defusing a nuclear bomb.

The Fourth Protocol will appeal most, perhaps, to those who aren't yet committed to mainstream adventures. The graphics really are first-rate — the icon sheets in particular are very realistic — and there are some nicely done sound effects and other refinements to enjoy. The arcade element here — as in *Eureka!* and *Spirit of the Stones* — will be tolerated but not enjoyed by some; it could have been liquidated with no loss of overall enjoyment.

Medieval evil

First in a trilogy of atmospheric text adventures, *Castle Blackstar* was originally published by SCR for the Spectrum about a year ago, and the only pity is that lovers of traditional hokum have had to wait so long for this excellent (and cheaper) 64 implementation courtesy of CDS at £6.95.

After a reasonably fast load, it's back to the medieval world so beloved by D&D groupies, involving a quest for a mystical orb with plenty of trials and traps in the way of exploring the 200 locations. The descriptions are nicely done, the parser will cope with more than fundamental verb/noun inputs, and encouragement is given by a constantly updated score readout.

In the absence of diverting (and sometimes distracting) graphics, a good text adventure must have that something extra — and this title has it in the form of the humour and irony which colour many of the responses your bumbling will trigger.

Full marks to CDS for bringing Castle Blackstar to the market place at a time when shoot-em-up/sports simulation/let's bomb the Reds-type games are a safer bet for software houses. And a gold star for offering a personal hints service; you will, believe me, get stuck — but enjoyably so.

Up The Amazon

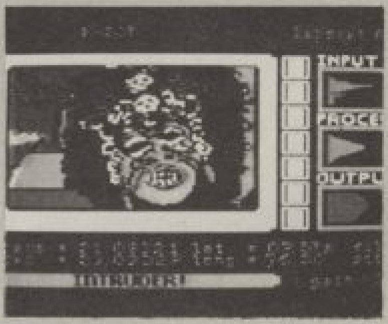


Waiting for the Amazon — or has rain stopped play in the final Test?

Unless you win the pools (or are a truly powerful reviewer like me, tee-hee) it's not every day that you get a chance to boot up a tasty import that costs a cool £19.95. *Amazon*, created by Michael (The Andromeda Strain) Crichton and coded by David Durand and Stephen Warady, hints at what life must be like for people who eat green figs and cream for breakfast and can afford to buy adventures at this price without at least visibly flinching. It comes from the States on the Trillium label — renamed Telarium for some obscure legal reason, and marketed here by W H Smith's own software arm.



Graphics to make even Tarzan smile



Watch out for the multicoloured intruders

The point is that although it costs as much as a Harrods' meat pie, you are getting tremendous value for money. A beautifully packaged, documented and realised graphic adventure, Amazon features some truly original and amazing sound and visual effects (such as tuning into a TV satellite broadcast with the joystick) to pep up the 'static' screens and a particularly inventive and visually stimulating line in challenges to your intelligence and initiative.

Some idea of Amazon's sophistication and complexity can be had from the fact that the enticing pack it comes in (something like a double LP sleeve) is

• CHARTS •

	1	(1)	**Gremlins** (Adventure International, GrA, £9.95)
	2	(3)	**Emerald Isle** (Level 9, GrA, £6.95)
	3	(8)	**Tir Na Nog** (Gargoyle, GrA, £9.95)
NEW	4	(–)	**Subsunk** (Firebird, GrA, £2.99)
	5	(7)	**Jewels of Babylon** (Interceptor, GrA, £9.95/£11.95 disk)
	6	(5)	**Gremlins** — C16 version (Adventure International, TA, £7.95)
	7	(2)	**Black Crystal** (Mastervision, TA, £3.99)
	8	(–)	**Classic Adventure** — C16 version (Melbourne House, TA, £5.95)
NEW	9	(–)	**The Helm** (Firebird, TA, £2.99)
	10	(6)	**Velnor's Lair** (Atlantis Gold, TA, £2.99)

Budget labels continue to dominate our chart with no fewer than six of this month's Top 10 selling at under £7, making the point that today's price-conscious adventurers are happiest with titles that are hard on the brain but easy on the pocket — though Gizmo & Co still defy anyone to knock them from the top spot for the second month running, and word-of-mouth recommendation probably explains Emerald Isle creeping back up one place.

British Telecom have surprised everyone (perhaps even themselves) with the success of their pennywise Firebird label, and their two new superior Quill-aided titles reviewed in *Valley* last month already seem to be ringing the right bells and are August's only two new chart entries.

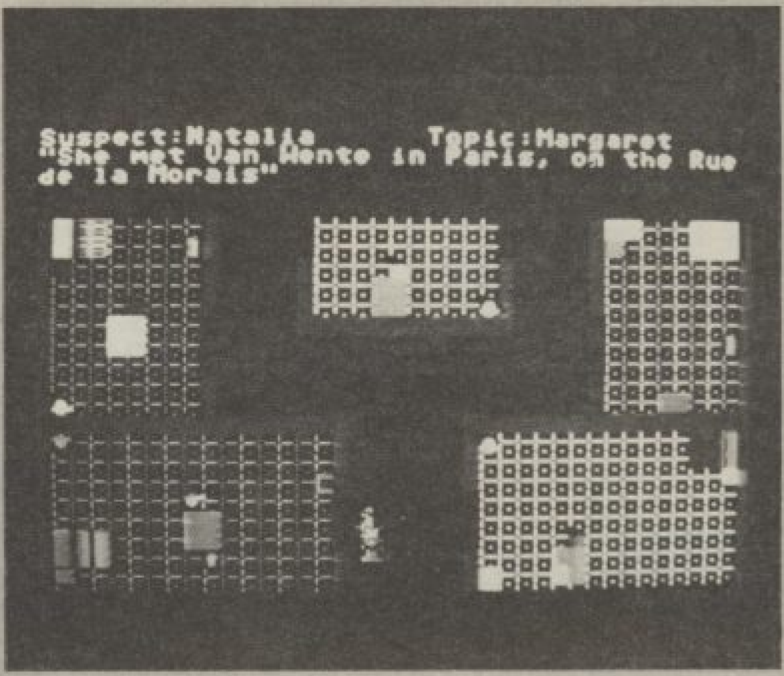
Software-starved C16 owners show their thanks to Adventure International and Melbourne House — but it's goodbye for now to Upper Gumtree and the nice but pricey Hobbit disk.

home for a brace of twin-sided disks and a wadge of papers which alone will take you a few hours to study and digest.

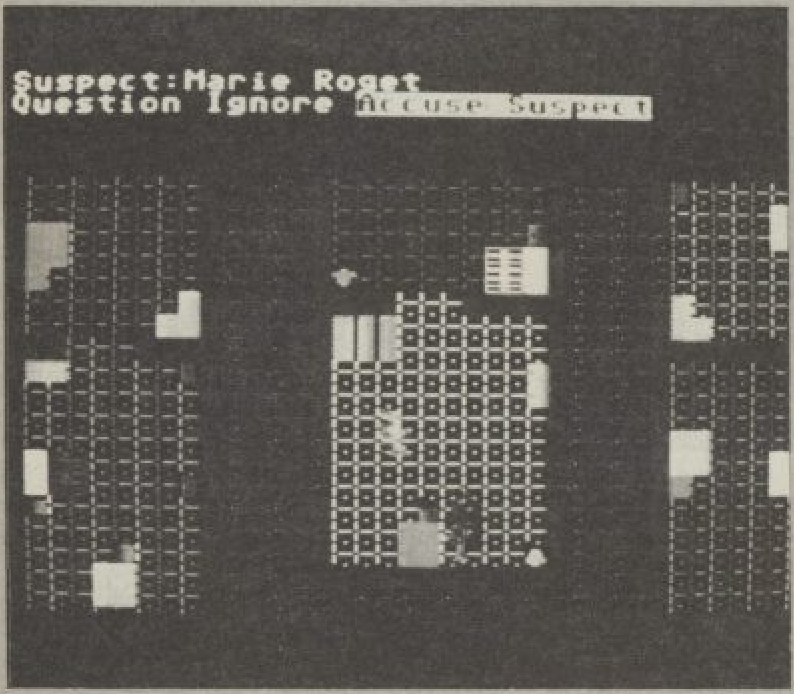
Amazon wouldn't make a good choice for even a wealthy novice, but if you've already graduated, you should be able to tackle this very expensive — but justifiably so — treat.

Zinderneuf sleuth

Perhaps the easiest way to pigeon-hole *Murder on the Zinderneuf* is to say that it vaguely resembles Sherlock with cartoons. Purists will consider it at least one stage removed from a true adventure, but it's that very difference which makes it interesting.



Murder on the Zinderneuf — "you ain't gonna pin this rap on me", with no butler to nail, you've got your work cut out



The scenario places you in a dirigible crossing the Atlantic with a motley assortment of 15 suspects to question and a homicide to solve in just 36 real-time minutes. This you do by using the joystick to move your spritely 'tec around the colourful scrolling plan of the airship's public rooms, where you will encounter obstacles and significant items and can question those you meet.

The gimmick is that you may choose to adopt the particular characteristics of one of eight different detectives, ranging from the pearls and twinset Miss Agatha Marbles to the rumpled Lieutenant Cincinatto of NYPD. Each has a different sleuth rating and this, and other factors, sees to it that the solution is not only different but differently arrived at each time you play.

During the process of deduction, you'll have a lot of fun feeling the collar of the avaricious Bible-thumper Jeremiah Folmuth, society girl Felicity Sucrose, ventriloquist Aldo Sandini and the other passengers — especially since you may choose, menu-style, to interrogate them in a forceful, seductive, polite, friendly or naïve manner.

There are also clues to be discovered, red herrings to ignore and much else to be enjoyed before the climax of the final accusation. Then the police will seize your suspect and ransack his/her room. If you guessed right, the murderer will confess. But if you're wrong — well, who wants to be stuck in an airship hovering 5,000 feet over a lot of water after making a *faux pas* like that?

Murder on the Zinderneuf comes with an excellent playbook that explains the game particularly well, describes all the characters involved most amusingly, and includes a useful floor plan. It's very different, very addictive and, at £9.95 or £12.95 on disk, one of the cheaper top-drawer American adventure imports.

• COMPETITION •

It's no secret that espionage is giving a shot in the arm to slumping summer software sales, with Beyond's *Spy Vs Spy*, Domark's *A View to a Kill* and Hutchinson's *The Fourth Protocol* all grabbing enough of a share to keep their publishers in Russian tea.

Never shy about milking a good thing, the games-makers are frantically searching book publishers' backlists for other conversion fodder, and it looks like a Len Deighton title could be next for the treatment.

This month you can win one of three copies of *Classic Adventure* from Melbourne House — in either 64/128 or C16 format — by simply naming the nameless ragged British agent who's the central character in Deighton's spy novels; that's right, because he was only given an identity when *The Ipcress File* was made into a movie starring Michael Caine.

Write in the name on the coupon below, or on a postcard, add your name and address and the titles of your three currently most favourite adventures — then mail it right away to the address shown at the bottom.

● *June winners were Mr M Green from Lincolnshire with Lords of Midnight as his answer and Paul Doherty from S. Glamorgan who got the most words in the Level 9 comp. Prizes on their way!*

The spy played by Michael Caine was named....................
Your name ....
Address ....
....

My three favourite adventures are:
1....................
2....................
3....................

Send your entry to IPCRESS COMPETITION, Commodore User, 30-32 Farringdon Lane, London EC1R 3AU.

DIY Graphics

I've only had a few minutes to skim through Phil Cornes' two latest Screen Shot titles from Dorling Kindersley, but *Commodore 64 Graphics Book 3* and *Book 4* at £5.95 each appear to give all the information, and more, that programmers wanting to incorporate hi-res and (static or animated) sprite-based graphics in their adventures could hope for.

Both books present plenty of really useful routines, including machine-code loaders to give a fast and professional result. The large format presentation and colour on every page make these guides a pleasure to study. At £5.95 each, you couldn't make a better purchase if you're serious about making the most of your 64's good looks. □

C-16 Adventure Special

by John Ransley

So you thought the C-16's measly memory counts it out as a machine for adventurers? Not so. We've rounded up the best of the C-16 adventure crop, for both the beginner and the experienced puzzle 'n' peril buster.

How do you pack the Hall of Mists, Elvenking's dungeon and the gremlinesque Kingston Falls into your Commodore 16's modest memory? Easy! Just put the program onto a plug-in cartridge, or put the genius of Brian Howarth or John Jones-Steele to work on refining text compression techniques to the point where [albeit at the expense of pretty graphics] it really is possible to cram a creditable version of **Classic Adventure** or **Gremlins** into your C16 [or, come to that, Plus/4].

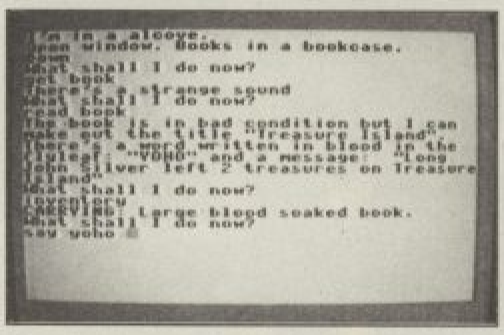


Scott Adams Classics

One is almost duty bound to begin this round-up of C16 adventures currently on offer with a look at the creations of the ubiquitous Scott Adams who, almost single-handedly, proved that there was intelligent life after Space Invaders.

But it's sad that Adams' earlier works — at least in the text-only versions now out on C16 cartridges from Commodore, price £11.99 each — are beginning to show their age.

With such lack lustre software support for the C16 [possibly the most underrated low-price micro of all time in my book], perhaps one is simply meant to be grateful that Commodore even bothers to market this modest trio — but these implementations of



Pirate Adventure, **Atomic Mission** and **Strange Odyssey** lean a little too heavily on the Adams' name [Pirate Adventure was actually written by Scott's wife, Alexis] for their appeal.

In none of them has any attempt been made to add a vestige of visual appeal to the oh-so-basic screens by making even a little imaginative use of the C16's excellent colour and sound facilities. No scene-setting title page, no mini-theme to heighten the atmosphere, not even a stab at setting out the text in an interesting way. Staring at the average sauce-bottle label might prove more stimulating.

That said, the entertainment to be had from almost any Adams title is still to be found below their uninviting surface, even if it has proved beyond the authors' capabilities to add a few good looks.

That winge apart, **Pirate Adventure** in particular makes a good choice for the novice adventurer, comprising as it does fewer than 30 locations but a great many more knuckle-whitening puzzles: beginners will soon find themselves wrestling with the magical rum, the classical anchor problem [the parrot may have good tidings] and those snappy crocodiles on their way to discovering the treasure that's the reward for solving some gloriously perverse arcanums.

A couple of rungs up the ladder of difficulty, **Strange Odyssey** will have you backpacking around a strangely sterile planet [rumour has it, the prototype for Milton Keynes] in a quest to find several items to help achieve your understandable ambition to escape. But you'll soon discover a snag-ridden jungle, an ambivalent ice hound and a rewarding museum and many other elements to keep you guessing.

Atomic Mission has more or less the same level of difficulty. The challenge is to save the world's first automated nuclear reactor from destruction — and wonder why it was built in the first place.

All three adventures come with a very clearly explained and illustrated playing guide to get the new adventurer on the road. But in terms of presentation, they're way behind the times [inputs are limited to verb/noun, and even then the logic has some irritating blind spots] but the convenience appeal of instant play cartridges can't be denied.

PUZZLEABILITY:	****
PRESENTATION:	**
PLAYABILITY:	***
VALUE FOR MONEY:	***

Melbourne Classic

There can be few adventurers who don't occasionally pay silent homage to Crowther and Woods, the Americans who in 1975 developed the world's very first computer adventure, which in turn borrowed heavily from Dungeons and Dragons, the role-playing board game that had made its debut a year earlier.

Of the numerous versions which C&W's Adventure spawned, two only are generally recognised by the *cogniscenti* as being wholly worthy interpretations of the original.

One is Pete Austin's version for Level 9, Colossal Adventure, and the other is John Jones-Steele's reworking for Melbourne House under the title **Classic Adventure** — of which a version for the C16 has, happily, just been released at £5.95.

The player first finds himself on a winding road near a stream, but soon a hut comes into view, where a lamp, keys and refreshment await. And you'll need them all to outwit the axe-throwing dwarves, the covetous pirate and the avaricious troll in your bid to collect the precious gems and many other hidden and guarded treasures that await your detection.

Direction commands can be entered as a single letter, and the input parser works on only the first four letters of the verbs/nouns you enter. This can

occasionally have unnerving results; typing REST, for example, triggers the response "Press play on tape" because your input has been mistaken as an instruction to restore a saved version. Get out of this by hitting Run Stop. There's a score and help feature.

Crisp, logical, often maddening but always entertaining, Classic Adventure is one of the best and cheapest of the crop for the C16.

PUZZLEABILITY:	*****
PRESENTATION:	***
PLAYABILITY:	***
VALUE FOR MONEY:	*****

Spellbound Princess



Also from Melbourne House at £5.95 comes **The Wizard and the Princess**. This Clifford Ramshaw title will be fondly remembered by Vic Pioneers because it was for yonks the only thing close to a decent arcade adventure available for that micro, which wondrous feat was accomplished by loading it in separate parts. The new, and much improved, C16 version also uses this trick.

There are five levels which autoload in the correct sequence as you successfully complete each part of your quest — or you may choose instead to load them in any order you choose.

The challenges include a mini graphic adventure, a couple of simple arcaders and 3D-style maze game. Find the wizard's castle, defeat the guardian dragons, negotiate the labrynthine passages and rescue the princess — and the rest of the day's your own.

The whole shabang can be listed so when you've exhausted its play value you have an opportunity to pick up some programming know-how.

PUZZLEABILITY:	***
PRESENTATION:	****
PLAYABILITY:	***
VALUE FOR MONEY:	***

Four Howarth Mysteries

How come that one-man adventure factory Brian Howarth finds enough hours in the day to produce all those titles for Adventure International *and* write C16 versions of four of his most popular Mysterious Adventures? The simple answer is that when Brian was converting a number of 64 titles for the Vic, Channel 8 Software his original publishers, hit trading difficulties last year. By the time all that sorted itself out and Adventure International bought out Channel 8, the C16 was in the shops — and AI shrewdly invited their new star author to tweak his conversions for the C16.

So how good is the quartet of text adventures that is the result? In **Ten Little Indians**, your adventures begin on a train to the country mansion of a fabulously wealthy eccentric who literally poured all his money into a gold figurine just before his death. The key to its discovery is in the ten worthless figurines you must first collect — while guarding your own life, possibly from the major's jealous nephew.

Ray Bradbury fans who enjoyed reading *Something Wicked This Way Comes* [crafted into an excellent film by Walt Disney] may recognise the scenario of a surrealist funfair used in **Circus**, where everything is what it's not and nothing is what it seems. Serves you right for running out of petrol on a deserted country road.

There's a science fiction flavour also to **Escape from Pulsar 7**, where you take on the role of a stellar trader who makes the mistake of freighting a strange creature from an intergalactic zoo which soon starts growing faster than Philip Mitchell's bank account.

Back to some Orwellian fun with **The Time Machine**, where gossip about strange lights and weird noises coming from the home of a whirly scientist — not to mention the figure in full armour seen wandering in the grounds — set you off on a quizzical quest in which time warps whip you through more centuries than Freddie Truman.

All four titles rely on a fundamental verb/noun parser, but the accepted vocabulary is more imaginative than most and help, score, save and inventory commands move things along.

PUZZLEABILITY:	*****
PRESENTATION:	***
PLAYABILITY:	****
VALUE FOR MONEY:	*****

Microdeal cheapies

Cheapest among C16 titles are **Williamsburg Adventure** and **Mansion Adventure** from Microdeal, both priced at £3.99. I gave up trying to Load my copy of Mansion after the sixth or seventh attempt but Williamsburg burst into life quite happily, eventually, and I found myself in a small mid-West colonial town trying to track down a golden horseshoe while dodging the hazards of evil spirits, ghosts, a murderous butcher and a terminal maze. Input is simply a verb/noun affair and you're given occasional bits of Help. Instructions are virtually non-existent.

One problem, I can't figure out a way of saving a game; one star deducted for that.

PUZZLEABILITY:	***
PRESENTATION:	**
PLAYABILITY:	**
VALUE FOR MONEY:	**

Text-only Spiderman

Another part of the Scott Adams empire is looked after by the UK arm of Adventure International, who've just released a trio of 64 hits in C16 text-only versions; **The Hulk**, **Spiderman** and **Sorcerer of Claymorgue Castle**. Price is £7.95 each.

All three offer a moderate/difficult level of challenge. The Hulk and Spiderman come with a first-rate 16 page leaflet explaining the scenario, characters and rules of play — though not, sadly, the colourful Marvel mini-comic that more effectively set the scene for the 64 versions. Why not?

The Hulk represented a new departure for Scott and most people who have worked through both this title and its successor would agree that Spiderman represents a great improvement in playability.

The Sorcerer of Claymorgue Castle got a best adventure of the year award, which recognition perhaps had more to do with this adventure's intrinsic quality than its chart success [and quite right too]. So you can think of it as a kind of art movie that Cannes loved but which bombed at the Skegness Odeon.

In this you take the part of apprentice Beanwick, entrusted by Solon the Master Wizard to retrieve the 13 stars of power hidden by zer vicked Vileroth.

None can be fairly compared with the 64 versions, with their attractive full-colour graphics, but thought of as text-only 'originals', they're all very diverting and virtually faultless.

PUZZLEABILITY:	*****
PRESENTATION:	****
PLAYABILITY:	****
VALUE FOR MONEY:	*****

Finally, Trevor Hall is rumoured to be preparing a special C16 text-only version of his classic *Twin Kingdom Valley*. Might Melbourne House follow suit with The Hobbit? After all, Tolkien's version was text only, too! □

THE SOFTWARE TOP 20

COMMODORE 64

	Title	Publisher
1	**Way of the Exploding Fist**	Melbourne House
2	**Soft Aid**	Softaid
3	**Dambusters**	US Gold
4	**Shadowfire**	Beyond
5	**Pitstop II**	US Gold
6	**Impossible Mission**	US Gold
7	**International Basketball**	Commodore
8	**Theatre Europe**	PSS
9	**World Series Baseball**	Imagine
10	**Kick Start**	Mastertronic
11	**Entombed**	Ultimate
12	**Airwolf**	Elite
13	**Rocky Horror Show**	CRL
14	**Spy Hunter**	US Gold
15	**Summer Games II**	US Gold
16	**Pole Position**	US Gold
17	**Raid Over Moscow**	US Gold
18	**Bruce Lee**	US Gold
19	**Cauldron**	Palace
20	**Everyone's a Wally**	Mikro-Gen

GENERAL CHART

	Title	Publisher
1	**Soft Aid**	Softaid
2	**Way of the Exploding Fist**	Melbourne House
3	**Dambusters**	US Gold
4	**Elite**	Firebird
5	**Shadowfire**	Beyond
6	**Softaid**	Softaid
7	**Dun Darach**	Gargoyle Games
8	**Starion**	Melbourne House
9	**View To A Kill**	Domark
10	**Alien 8**	Ultimate
11	**Tapper**	US Gold
12	**Knight Lore**	Ultimate
13	**Atic Atac**	Ultimate
14	**Summer Games II**	US Gold
15	**International Basketball**	Commodore
16	**Jet Set Willy 2**	Software Projects
17	**Five Aside Football**	Anirog
18	**Rocky Horror Show**	CRL
19	**Herbert's Dummy Run**	Mikro-Gen
20	**Theatre Europe**	PSS

Don't Buy another tape...

(OR DISK!)



...Until you've seen the low, low prices in our Commodore Club magazine. Light up your bank manager's face by getting **Shadowfire** for just **£5.95** (saving £4), steal yourself a bargain with **Spyhunter** at only **£4.95** or join the priveleged by buying **Elite** at **£11.50** instead of £14.95. What's more, if you get an order in before the end of August you can claim a **FREE GAME**. Yes, place an order worth £12 or more and you can take *Mastertronic's* **Kik Start** (which was given a rave review in the July issue of *Zap!*), or the Spectrum game **Finders Keepers** — recently released on the Commodore 64 — at no extra cost.

So what's the catch, we hear you say? How many tapes must I commit to buy? The answer is **none**. If you become a subscriber to our magazine (which is available only by post) then we enrol you as a member of our software club at no extra cost. It's then up to you whether you buy anything or not. There are no minimum purchase requirements.

The magazine is published six times a year and is packed with product reviews (including lots of screen photos) game playing tips, competitions to enter and more. Hurry now — if you take out a subscription within the next four weeks we'll give you a £1 voucher towards your first purchase through the Club.

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Lands of Havoc
Commodore 64
Microdeal
Price £6.95/cass

Lands of Havoc is another of those multi-room arcade adventure games where you have to get this, get that, then take it round the corner and open the box. You know the plot backwards.

It is packaged like an Ultimate game in a simple black box with glossy instructions that read like third-rate Tolkien. Get this: "Another place and another time. A land of plenty. A land healthy and beautiful. A people happy and prosperous. This was the land of Haven . . . The land had all that anyone could ask for until the Dark Lords came."

Box and instructions apart, there ends any resemblance to an Ultimate game.

As you might expect, the Dark Lords mentioned above have fouled things up in Haven — overthrowing the benevolent High Vanish.

What the nasties didn't count on was that Vanish was not going to (vanish that is) quite so soon. The shrewd old wizard left instructions on how to find the Dark Lords in the Book of Change.

You play the part of Sador, a reptile with the heart of a man, sent to save Haven from eternal evil.

First you must find the book hidden in the alchemist's storeroom in the middle of the village. To help you find your way around Havoc you are supplied with nine colourful card maps that you fit together jigsaw fashion. These are laid out according to instructions given on screen that are randomly generated for each new game.

But the maps provide a picture only of the first part of the game. When you complete this part of the game you will be on your own in the uncharted lands.

As you explore Havoc you will be confronted by all manner of evil creatures that you must ward off as you travel.

There are over 2,000 screens in this complex puzzle including a 'secret warp' that puts you into the heart of the game — if you can find it.

There is not actually anything wrong with this game. The graphics are reasonable — and the game challenge seems to be pretty tough. There is just nothing very special about it either. It looks like an Ultimate game on the shelves — the manufacturers admit that they looked long and hard at the Ultimate games before launching Havoc — but it is nothing like one when you get it up on screen. It lacks originality — and the theme is now far too hackneyed to be convincing. E.L

Presentation:	■■■■□
Skill level:	■■■□□
Interest:	■■□□□
Value for money:	■■■□□



Frankie Goes To Hollywood (The Pleasure Game)
Commodore 64
Ocean
Price £9.95/cass

Thankfully Ocean haven't adopted the Broad Street 'game of the Band' approach that Argus recently gave to the McCartney effort. Rather than requiring you to know everything about Frankie Goes To Hollywood down to what colour underpants they wear, The Pleasure Game attempts to encapsulate the FGTH view of things.

You are a total blank. Rather like the body on the billard table in *Invasion of the Body Snatchers*, you lack any semblance of personality. Your social and political awareness is zero, you are an intellectual cripple. Don't take it personally, that's simply the initial state of your animated character counterpart.

To begin with, you will find yourself in a street with four houses. There are four streets in all, making a total of sixteen houses. The eventual objective of the game is to find your way into the Pleasure Dome. To do this you must build your character's personality until he becomes a complete person.

This is accomplished by entering the houses and searching the various rooms for objects and clues. In some cases simply picking things up will gain you pleasure units, at other times they're harder to come by. For example, there's a whodunnit type murder mystery to solve. Was it Mrs. Straight, Joe Public, Miss Mundane, or someone else? It's hard to fathom out as the murderer constantly changes.

Intermingled with the adventure play are arcade screens. The way in which these are implemented is something else. In a couple of cases they start out as pictures on the wall. Touching the picture causes it to expand to screen size and the action begins. There are about half a dozen of these, including a shooting gallery — take pot shots at some infamous politicians, and a moonlit flower garden where, like a demented Morrissey (sorry, wrong band), you must catch the blooms as they fall from the sky.

My favourite, although not graphically superb, is a shoot out (gob out!) in which Reagan and Gorbachev spit at each other from opposite ends of the screen.

Successful completion of an arcade screen, or finding the right door, lands you in the Corridors of Power. This is a 3D maze through which you must wander shooting fireballs. It's worth blasting the fireballs whenever possible as this opens up new sections of the game for you to explore.

You are periodically informed as to how complete a person you have become and this information is also given graphically in the form of a bar chart at the side of the screen. When you become a 100% complete person the letters BANG appear above the bars of the graph. I was impressed by the deep significance.

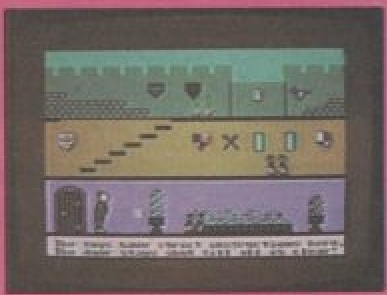
SCREEN STAR

Rupert and the Toymakers Party
Commodore 64
Argus
Price £7.99/cass

I can't say I'm a particular fan of level and platform games. In fact I hate them, they send me into furious rages and provoke me into lobbing the computer out the window. This is just one of those kinds of games. But wait, because it's great. I don't want to drop it into a vat of acid or slash my wrists whilst playing it.

It features, as the title will suggest, Rupert the Bear, 65-year-old cartoon star, the character that spawned a fashion for check trousers, yellow scarves and red jumpers.

Poor old Rupert has got left behind on the way to the party and his chums have pinned a trail of invitations to the walls of the toymaker's castle. As Rupert you must hop, jump and wander through the four screens of each level collecting the invitations. The screen is split into three levels that Rupert must work his way through before a door flies open and takes him onto the next level. You begin each level with a little verse couplet which gives you a hint on how to complete that phase.



As with any platform game there are nasties, except there's nothing nasty in this game. You have to watch out for the tin soldiers that patrol around the

Three great scoops for Screen Scene again this month. The first reviews of Summer Games, the sports sim from Epyx with unbelievable graphics, Spy versus Spy II — the continuing adventures and, the best talking game ever — Kennedy Approach.

Friendly Ken the helpline king took a trip to Manchester to bring you an exclusive report from Ocean software about their Frankie Goes To Hollywood game.

C16 owners are also included in the fun with two new offerings from Gremlin Graphics. Super Gran also makes an appearance on the baby Commodore as does Jon Williams, author of the Berks trilogy, with a new game on the English Software label.

Sports fans continue to get support from the software houses with Five Aside Soccer from Anirog and International Tennis from Commodore.

It just goes to show that if you really want to be in the know about the latest hot Commodore games you had better not miss Screen Scene every month.

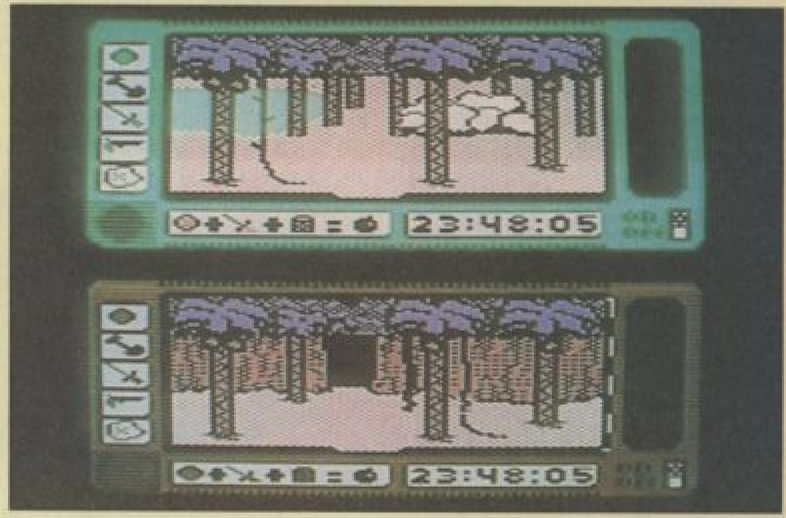
If you get this far you must find your way into the Pleasure Dome, but this can only be done if you have completed all the arcade screens and picked up all the right bits and pieces in the right order. Tricky huh? All this is, of course, accompanied by the strains of Frankie pouring forth from the telly speaker. Surprisingly, the music is not outstanding; the only thing I recognised was Two Tribes.

The big question is will *The Pleasure Game* be as big a success as its musical counterpart. At ten quid it's a little over the odds for a game, but then there's a lot to it and it's very well put together. I predict chart-topping success. K.M

Presentation:	■■■■■
Skill level:	■■■■□
Interest:	■■■■□
Value for money:	■■■□□

SCREEN STAR

Spy Vs Spy I/ Spy Vs Spy II
Commodore 64
Beyond
Price £9.95/cass



The black and the white spies in Spy Vs Spy had to pit their wits against each other in a race around an office building to find some secret documents before making good their escape in an aeroplane.

Each spy had to set booby traps for his opponent such as a bucket of water above a door, or bomb in a drawer, to stop him getting the documents first.

It was all fairly tongue in cheek and very much in the tradition of the cartoon strip from *Mad* magazine on which it was based.

As a two-player game it was streaks ahead of anything that had gone before.

The good news is that the sequel will shortly be available and, as an added bonus, version one will be given away free on the 'B' side.

Spy II takes up the story where version I left off. Both spies got onto the plane but have to abandon it over a group of islands miles from anywhere.

The opening screen shows them descending, parachutes open, onto one of the islands.

The spies are searching for a missile left behind by the enemy. It is in three parts, hidden throughout the island. To locate it you will first need to find some other items: a map, compass and a shovel to dig it up.

As in Spy I you are racing against time as well as the other spy. But there is an added urgency on this island — it's got a volcano.

When it goes off the whole screen shakes and the island fills with lava, ending the game for both spies.

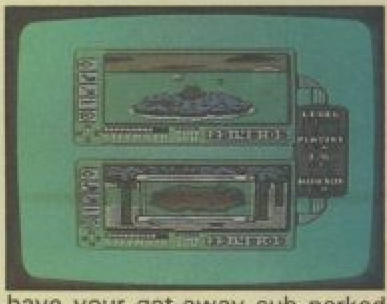
When you find the missile you have to defuse it and take it to your submarine to escape.

To stop your opponent getting the missile first there are a number of traps that you can set for him. These are just as much fun as they were in the first game, particularly the coconut bombs that you make using the gasoline from the wreckage of the aeroplane.

You also have a rope to set snares for your opponent — but watch out you don't step into it yourself as you will end up hanging from a tree if you do.

There is also a gun hidden somewhere on the island giving a major advantage to the spy who finds it first.

The game has several play options. You can choose to play a multi-island game where the missile parts are hidden on several islands necessitating a swim in the shark-infested waters. You can also choose to



have your get-away sub parked conveniently beside the island or, for the advanced player, have it appear at random somewhere in the waters surrounding the islands.

Spy II is a bigger game than the original. It uses the same split screen technique and trap selection device but the complexity and game-play is much much more.

At £9.95 for Spy I and Spy II this has got to be the best value new release of the year. L.S

Presentation:	■■■■□
Skill level:	■■■■□
Interest:	■■■■□
Value for money:	■■■■■

castle in pairs or out of control Hornby trains. If Rupert bumps into them he flips over and loses a life — expressed here as taking a tumble, losing lives is far too brutal for this game. Hitch a ride, though, on a passing bird or plane to get out of trouble.

It doesn't sound all that special so far does it? You've got to see the graphics. What we have is a fully animated Rupert walking around the screen. Just like the real thing, and twice as cute. Every time he hops over a toy soldier or bounces up some steps his scarf flaps around his neck. Colours are bright without being garish and details are well-

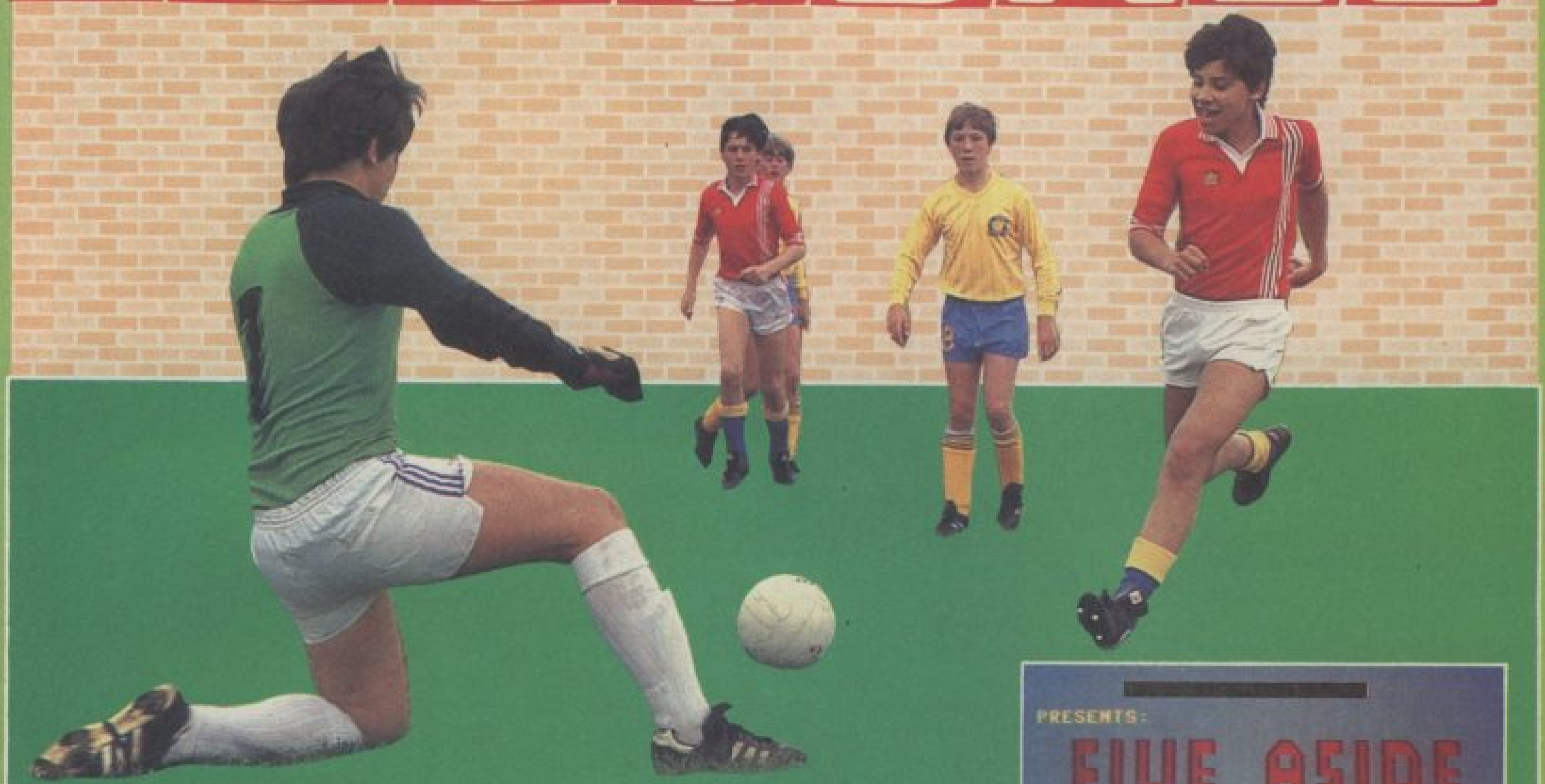


defined without cluttering the screen. I enjoyed controlling Rupert as much as I enjoyed driving the prehistoric unicyclist off the edge of the mountain in *Grog's Revenge*. Buy this game, you must meet Algie and Bertie, they're the wettest friends a guy could have! So:

Buy this game and you'll go far
For Rupert is this month's Screen Star. M.P

Presentation:	■■■■■
Skill level:	■■■■□
Interest:	■■■□□
Value for money:	■■■■□

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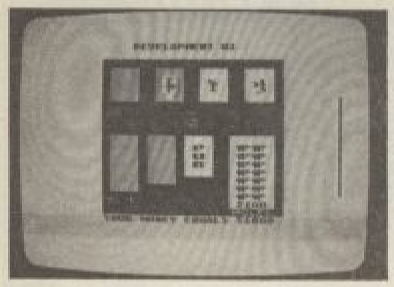
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ANIROG

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M.U.L.E.
Commodore 64
Ariolasoft
Price £11.95/cass
£14.95/disk

Another cerebral game of the management/strategy persuasion but a cut above the 'Run a Banana Republic' style of presentation. You don't get an instruction leaflet but a player's guide, which is quite a hefty tome when compared with the normal brief run-down. You really need to play along while reading the ins and outs. There are three standards of play available for four competitors with a handicap feature built in.

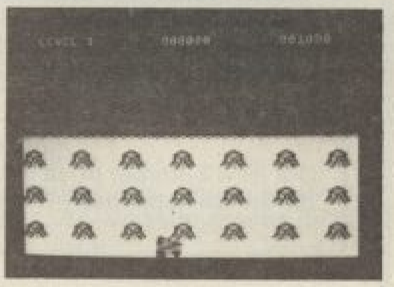
A bevy of pioneers are sent to exploit a distant planet with the aid of Multiple Use Labour Elements. With a starting kitty plus a small store of goods, each player attempts to develop the environment better than the others by selecting the most propitious land plots for the production of food, energy or maybe smithore. You step through several phases: claiming a plot of land; fitting out your M.U.L.E. with the most suitable equipment; wampus hunting or gambling; the actual production with the possibility of the odd acid rain storm etc to foul things up; and the most important, cagey trading section. There's Beginner, Standard and Tournament modes. As you would expect, the character with the most assets is declared pioneer of the year.

Things gradually get more complex with the introduction of fresh concepts to give the grey matter a more strenuous workout.

A complex trading game with the odd cartoon interludes, best played with a full house. L.S

Presentation:	■■■■■
Skill level:	■■■■■
Interest:	■■■■□
Value for money:	■■■□□

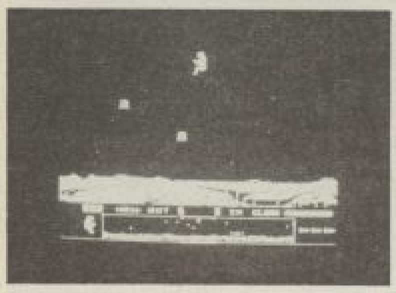
War Machine
Commodore 64
Pocket Money Software
Price £1.99/cass



Microdeal have decided to wade into the cheapie market with the Pocket Money label, mostly concentrating on the Dragon but with a couple for the 64.

When the Vic was young, the manual contained a game that was impossible to enter correctly until Commodore blustered out a pathetic apology-cum-explanation far too late to comfort exasperated first time users. That listing was 'Tank Vs UFO' and is still to be found served up more professionally in type-it-yourself books. As a saucer skims overhead you have to spurt out shells, avoiding returned bombs at the same time: obviously timing is everything. Engaging enough when you've managed to get a freebie from a listing but hardly up to the standard of the latest space epics. Still, if a simple ballistic exchange is what you're after then you will be more than pleased to buy a machine language version that throws in enemy tanks to boot. There are several lanes to move about in, delineated by rocks which are but minor encumberances for trained hunter-killers. Simple action but as fast as you like. L.S

Presentation:	■■□□□
Skill level:	■■□□□
Interest:	■■□□□
Value for money:	■■■□□



Dropzone
Commodore 64
US Gold
Price £9.95/cass
£14.95/disk

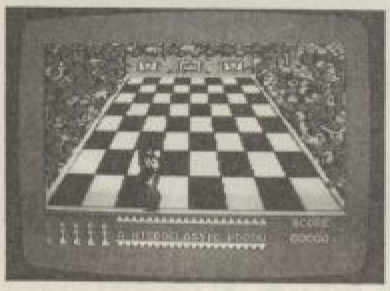
If you've had a micro of any description for the last three years you will doubtless have seen several skits on *Defender* plus one or two straight renditions. *Guardian* by Alligata was surely the best of a bunch that included quite a few stinkers.

But now, the marauding, frenzied foes have boomeranged back again, thinly disguised and with aliases, defying you to send them to happier hunting grounds.

The normal rugged terrain, only shown in outline in the past, has been given the full in-depth treatment, and now you get a well-defined lunar surface. Your joystick no longer prompts a ram jet but a very vulnerable looking chappie in a space suit sporting a jet pack. He's carrying a ridiculously powerful laser and the customary arsenal of smart bombs — which he must keep tucked in his utility belt. Invisibility and invulnerability is but a stab of the F7 key away, but you have to earn extra units by nifty shooting.

Your task is to escort the humans to the Dropzone intercepting the planters (nasties) who release androids which mutate your chums into nemesites (more nasties). Blunderstorms (nice one!) send out lightning flashes and a deadly drizzle. Then there are baiter contraptions, spores which release trailers plus the essential anti-matter. The scrolling is smoooth with no annoying jerkiness or flicker: although *Defender* characters must be small the definition could have been improved had dark blue been avoided. This is a neat, hectic entertainment package. Classic blasting. L.S

Presentation:	■■■■□
Skill level:	■■■■□
Interest:	■■■■□
Value for money:	■■■■□



The Chess Game
Commodore 64
Micro Classic
Price £7.95/cass

The epithet 'original' can be bestowed on this first release from the new software company with the ambitious-sounding name. As they have already written *Hunchback* for Ocean, their launch program is not likely to be a flash in the pan.

What we have here is a series of arcade puzzles, enacted in full perspective, dredged from a chess fanatic's full-blown nightmare. It may seem a breeze to march pawns across a chess board even if a hostile horde of creeps is hemming you in . . . but it isn't. Hunting you down is a different chess piece on each screen, clonking around through its recognised move patterns. Combine that threat with the deadly red squares (again generated in a different manner for each phase) and you have a real challenge on your hands. It's a game you have to work at, probably appealing in the main to the 'sophisticated' gamester or the jaded zapper. This one won't date like last year's space games.

The graphics are just the ticket. The oddball freaks, ever ready to grab you should you trip over the edge of the board, have that medieval creature-from-hell look and are much given to hurling fireballs. As for the animation, it's realistic 3D throughout all 64 squares.

If you are determined there is plenty of entertainment to be tapped. L.S

Presentation:	■■■■□
Skill level:	■■■■□
Interest:	■■■□□
Value for money:	■■■■□

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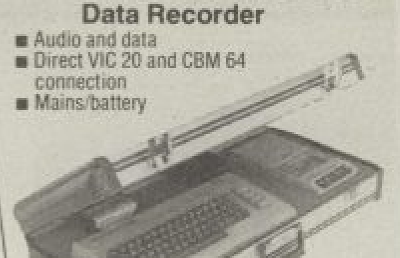
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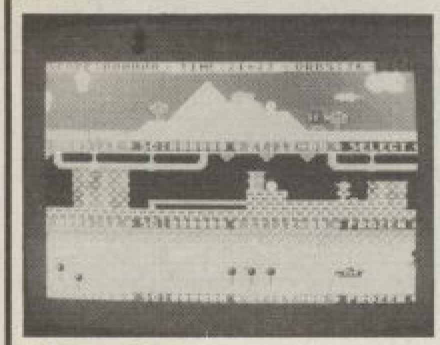
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Timeslip
Commodore 16
English Software
Price £6.95/cass

Timeslip, for want of a better description, is a bit like three versions of Scramble rolled into one. The screen is divided into three sections or time zones. At the top is the planet surface, this is the nearest thing to Scramble proper. You have to manoeuvre the rocket ship over the terrain and blast literally everything that gets in your way. Whilst you score points for this, the short-term objective is to destroy the twelve orbs placed in very awkward positions.

When you've wiped out the orbs in zone one it's on to zone two and what the blurb describes as 'jet through the underground caverns'. My version had underground caverns alright, but the 'jet' bore more of a resemblance to a sparrow. Anyway, the order of things in zone two is much the same as for the previous one. You have to manipulate the jet (sparrow) around all the nasties and destroy the twelve orbs.

You have to complete your mission and destroy all 36 orbs in 24 hours (not real ones). In addition, you must synchronise the clocks in all three zones to 00.00 hours.

If you do take a hit, or do something stupid like crash into the mountains, you incur a 30 minute penalty. As if that weren't enough to screw you up, if you get hit five times a 'timeslip' occurs, i.e. all the clocks are desynchronised. Ha ha what a laugh. Had me in stitches after I'd spent half an hour getting them almost right. **K.M**

Presentation:	■■■■□
Skill level:	■■■□□
Interest:	■■■□□
Value for money:	■■■□□



Super Gran
Commodore 16
Tynesoft
Price £9.95/cass

I'm going to have to be a little more limited in my praise than I might have been. Having loaded *Super Gran*, I eagerly plugged my joystick in and proceeded to whizz around the screen on the famous 'fly cycle'. Good graphics here, I thought, and a considerable improvement on the 64 version despite inferior graphics.

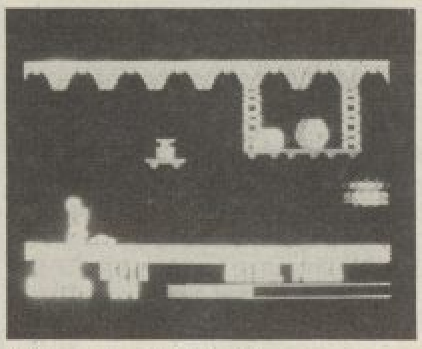
Only problem was, half an hour later and I'm still there trying to avoid the imposter Gran and her deathly cannonballs. I come to the conclusion I must be doing something wrong and refer to the instructions. "Gran's only protection is to use her magic Ray Machine. Having survived that screen she moves on to the next action."

No, I seem to have got it right. I go back and have another bash, this time persevering for over an hour, but the maximum amount of time I seem able to survive is about a minute, obviously not long enough. Now I'm no wally when it comes to handling a joystick. I made Group Captain in *Spitfire 40*, I'm up there with the best, honest. But this one had me stumped.

I can understand Tynesoft wanting to make the game a challenge, but isn't this going a bit far? Apparently, if by some superhuman feat you manage to get past the first screen, there are five more to tackle. Phew!

So all I can really say is that the first screen of *Super Gran* is pretty good in terms of graphics and sound, if a little difficult to get to grips with. If the following screens are up to the same standard then it's not half bad and should keep you occupied well into the next decade. **K.M**

Presentation:	■■■□□
Skill level:	■■■■■
Interest:	■■□□□
Value for money:	■□□□□



Sword of Destiny
Commodore C16
Gremlin Graphics
Price £6.95/cass

Sword of Destiny is one of those games that comes with a cassette inlay full of hype, but which in itself doesn't amount to an awful lot. Just take at look at this: 'Kelok — a master warrior of the eastern region — has been killed in battle by Xorphas, an evil warlock. Not content with killing Kelok, Xorphas has stolen his heart, leaving Kelok's soul to wander for ever, doomed to the torment of death with no peace'.

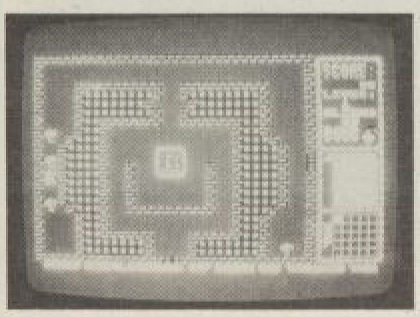
It goes on. I'm not against this sort of thing in principle, it adds an imaginative angle to games, but it has to be backed up.

Basically, *Sword of Destiny* is a platform game without too many platforms. You move Kelok around, killing the various zombies with a swipe from the old sword. As well as this you must pick up certain objects as you go to open up other sections of the Abyss. Killing the zombies is an activity which must be executed with a certain amount of gusto otherwise you run out of Astral Power and it's start again time.

Graphically it's not at all bad. Kelok himself looks a bit like a Roman Centurion and moves quite smoothly. The zombies bear a remarkable resemblance to flying telephones.

Apart from anything else the game seems to lack any kind of structure. After half an hour of killing telephones I began to think: why am I doing this? The answer? I was trying to work out why the music kept turning itself on and off for no apparent reason. Maybe Gremlin should get the people who write their inlays to design the software. **K.M**

Presentation:	■■□□□
Skill level:	■■□□□
Interest:	■□□□□
Value for money:	■■□□□



Dork's Dilemma
Commodore 16
Gremlin Graphics
Price £6.95/cass

Dork's dilemma is that he has crash-landed on a strange planet that looks remarkably like a maze. He leaves the tangled wreckage to take a nose around and in his absence the aliens, or natives depending on how you look at it, have dismantled the craft and hidden the bits.

This is where you come in. You have to guide Dork around the maze to retrieve the fragments of his ship; there is one on each screen. They are not too difficult to locate because each part is smack in the middle of the screen. The difficulty arises in avoiding the Zobwats — little creatures which follow you around and attempt to entrap you in cul-de-sacs. Contact with a Zobwat spells instant death.

Another thing in your favour is that you can convert Zobwats into alien pulp by employing the lazer splat time bomb (their spelling, not mine). The only problem with this device is that it's fairly indiscriminate. It has a very short fuse and unless you're quick on the retreat you'll end up pulped along with the hapless Zobwats.

If you get to the centre of the maze you can pick up your spare part and then move on to the next screen. Should you get to the stage where you have all the bits they then have to be assembled in a jigsaw on the far right of the screen. I didn't actually get this far — I got bored.

On the whole, Dork is a pretty average game. There's nothing *wrong* with the game, at £6.95 even the price is average. I just wasn't inspired. **K.M**

Presentation:	■■□□□
Skill level:	■■□□□
Interest:	■■□□□
Value for money:	■■□□□

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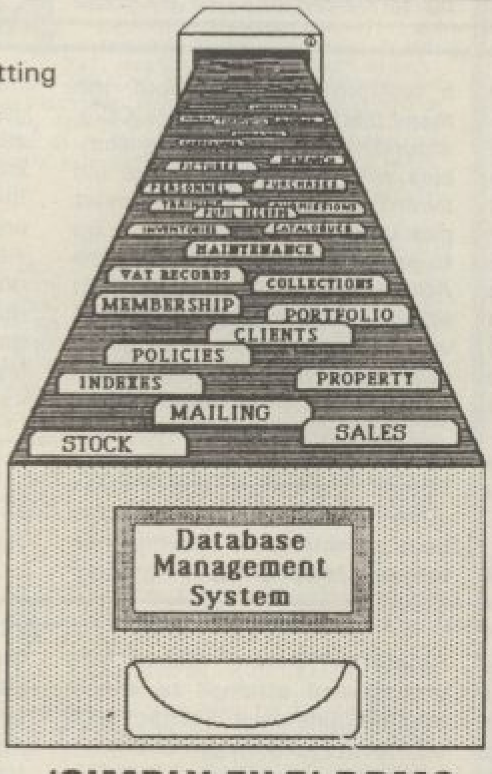
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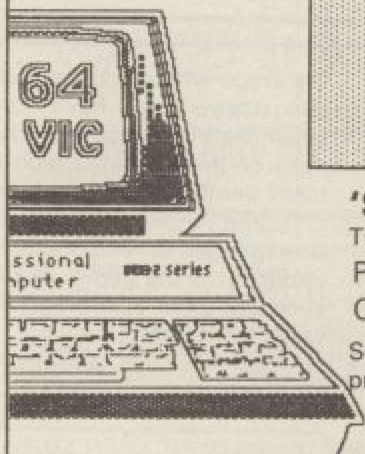
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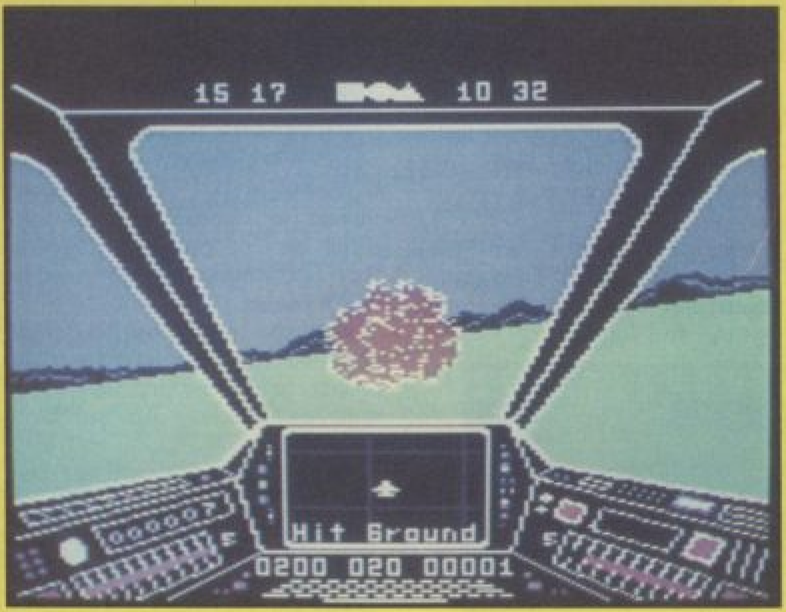
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Skyfox
Commodore 64
Electronic Arts/ Ariolasoft
Price £9.95/cass £12.95/disk

Skyfox provides us with an irresistible opportunity to resume the debate over American software versus our own home-grown games. The game comes from the Electronic Arts stable — probably America's premier games house.

Judging from the enthusiasm with which they demonstrated it at the recent Consumer Electronics Show in Chicago, they obviously consider it to be pretty hot — definitely one of the best titles in their latest batch of releases.

So what is it? Basically a 3D shoot 'em up in which you pilot the Skyfox Mach 4 Federation fighter plane, against the enemy, whose motherships are attacking Federation asteroid bases with aircraft and tanks.

The game has a tactical side as well. You must use information from a satellite-view to track the positions of the invaders and plan your attacks. All the normal flight aids you'd expect with this type of game are present: shields, scanners, radar, auto-pilot, and a thrust button. Weaponry is equally sophisticated, including guided missiles as well as normal rockets.

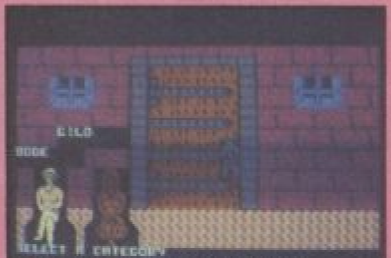
Graphics are superb. Highly detailed, and fast moving. This is undoubtedly a high quality game BUT — there is nothing new or unique about it. It may be a slightly better rendition of some of the 3D strategy shoot 'em ups that have gone before but it is not breaking any new ground as far as gaming is concerned and is not up to the high and innovative standards set by Electronic Arts in the past.

If you want a deep space shoot 'em up with strategy thrown in then Elite has to be a much better buy. If you've already got *Stellar 7, Death Star Interceptor*, or any one of the dozen or so rip-offs of *Star Raiders*, there is absolutely no reason for you to consider buying this anyway.

So where does this leave us in the debate? For my money, if this is the best that America's top games house can come up with then British software houses should take cheer. *Shadowfire, Strange Loop, Way of the Exploding Fist* and *Entombed* are all better games than this piece of Yanksoft. **E.L**

Presentation:	■■■■□
Skill level:	■■■□□
Interest:	■■□□□
Value for money:	■■■□□





Monster Trivia
Commodore 64
US Gold
Price £9.95/cass £14.95/disk

This — as the title hints — is an unlicensed version of the current fad board game 'Trival Pursuit'. The basic plot is that you enter a Professor's mansion and are taken down to his cellar, where the Trivia Monster awaits. If you know lots of incredibly useless facts about nothing of importance, then you might escape the monster's clutches. Prove dumb and he has you for dinner.

So far, so good. What we have is an excuse to test out your general and specific knowledge — something everybody likes to do, that's why quiz shows are popular. But I'm not that easily satisfied.

First of all you have a choice of fifteen different sets of questions, which you select by loading the tape at a certain point on the tape counter. It took me several loads to get it right and proved pretty irritating. Never mind, I thought, Cosmi did the same thing on *Super Huey*, it doesn't really mar the game, plough on regardless.

There you are sitting down in the cellar, sitting next to your partner (it's a game for 2-4 players) being fed questions before being fed to the monster. You have a choice of several options such as sports, showbiz, the arts and history and you have to type your answer into the machine. Now let me ask you a little question before we go any further. What do all US Gold games have in common? Easy one, they're all American, you reply. Correct, well done. Do you know what that means in respect to this game? No don't bother, I'll tell you. The questions are for Americans. This doesn't really matter too much for the arts because they don't have much to speak of, but when it comes to sport, you're likely to find yourself struggling over baseball and American football questions. History dwells on wars of independence, battles with injuns and obscure treaties between States.

This is all inexcusable. US Gold have snapped up the game and bashed it out without bothering to reprogram some anglicised questions in place of all the Yankee trivia. Money for old rope in other words. Save your dosh and do a crossword or, if you must, buy the board game. **M.P**

Presentation:	■□□□□
Skill level:	■■■□□
Interest:	■■■■■
Value for money:	■□□□□

SCREEN STAR

Summer Games II
Commodore 64
Epyx/US Gold
Price £9.95/cass
£12.95/disk

gold medal winning superstar.

Epyx are not taking it lying down, though. The top American arcade game writers (*Impossible Mission, Pitstop I* and *II*) have just launched *Summer Games II* — with eight new events.

Joystick manglers are going to love this one. It features the time one of them wins an event. There is also an opening ceremony complete with white doves and, of course, a winner's rostrum.

The new events are Triple Jump, Rowing, Javelin, Equestrian, High Jump, Fencing, Cycling and Kayaking.





In the Top Ten computer games that should have been hits, *Summer Games* must surely take the number one spot.

It was much better than *Daley Thompson's Decathlon* but in Olympic year no-one could resist the personal endorsement of our same frills that made the original games so eye-catching. Things like the nation selection board — where you choose your flag and enter the name of your favourite athlete. The national anthems of all the countries represented with flags are played back each

The best of these is the Equestrian challenge which is a masterpiece of programming. Not easy though — requiring six different positions of the joystick. First make your horse canter, then gallop, approach the obstacles correctly, jump, and then land without falling. It will take a lot of practice to get it right but it's fun when you do and the animation is stunning.

The javelin is also excellent — you can almost feel the weight of the spear as you balance your athlete for the throw.

What I like about *Summer Games II* is that more skill is required to master it than with other similar games. It's more than just shaking the living daylights out of the joystick.

With the high jump, for example, you've got to get your approach to the bar just right — as well as building up sufficient pace.

Race freaks are not left out, though, as there are two of these, cycling and rowing, as well as a head to head fencing bout.

Ask any 64 gamer what, in their opinion, is the best sports simulation on the market and chances are they will say *International Soccer*. That opinion is going to change — *Summer Games II* must now take the gold. E.L

Presentation:	■■■■■
Skill level:	■■■■□
Interest:	■■■■□
Value for money:	■■■■□



Locomotion
Commodore 64/C16
Commodore
Price £5.95/cass

Locomotion is a Casey Jones style (no, not cheeseburgers) railway game where you have to switch points to avoid collisions with the runaway trains. There are two ways to play, as a strategy challenge, or just a straight arcade game. The strategy game — levels 1-4 — is the most enjoyable.

Here you have to collect trucks full of gold and deliver them to the bank. The trucks are left at random around the network in odd sidings. To pick up a truck you reverse into it at no more than twenty miles an hour. Any faster and you crash.

As you travel the system you will spot a truck, possibly several tracks away. The challenge now is to switch points, and reverse back and forth until you can make the pick up.

Only three trucks can be coupled at any given time and you must also watch the indicator below the game window to check the contents of each truck connected. Various cargoes have different uses. The sheriff protects you from the outlaws that are dotted around the countryside looking menacing on their horses. There are also bridge parts, rails, explosives, livestock, and fuel in some of the trucks. It's good fun to play despite rather basic graphics and slightly sluggish controls.

The higher levels are really just a test of reflexes. The train is kept at a constant 60mph on these levels and you don't run out of fuel however far you travel. The objective is simply to stay alive, to avoid the runaway trains, and prevent crashes by swift point changes.

If you played any of these train games in the arcades and liked them then this does provide a good copy to play at home. E.L

Presentation:	■■■□□
Skill level:	■■■□□
Interest:	■■□□□
Value for money:	■■□□□



Kennedy Approach
Commodore 64
Microprose/US Gold
Price £9.95/cass
£12.95/disk

Kennedy Approach is an air traffic control simulation based around some very impressive speech synthesis. You literally talk the approaching planes down as they circle the airports.

To make contact with an incoming plane you position a grid over the plane with the joystick. Press the fire button and the computer speaks the name of the flight, its flight number, and issues its instructions. The altitude, bearing and direction are all adjusted to meet the tower's orders.

As well as keeping a constant check on the positions of all aircraft there are additional hazards — such as mountains, severe weather and even over-cautious security forces in Washington who will shoot you out of the sky if you fly too low over the White House.

At the end of a shift your performance is measured and you are paid accordingly. Bonuses are awarded for successful landings, proper exits, and emergencies handled correctly.

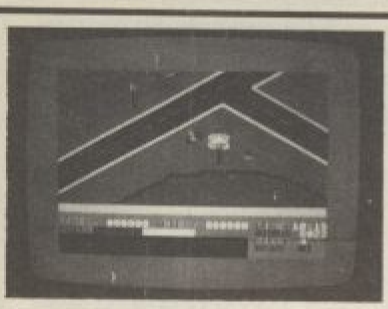
If you commit any major errors, such as a crash or missed exit, you are sacked and your career as an air traffic controller is at an end. If you do make mistakes the game enables you to view an action replay.

Kennedy Approach is an excellent strategy game. If you prefer the deeper, more involved type of game then this is definitely for you.

After playing it for a couple of hours you begin to feel some of the power, and tension, of a real-life air traffic controller.

'Wild' Bill Steeley and the Microprose team have come up with another excellent flight game. Deserves to do as well as *Solo Flight*. E.L

Presentation:	■■■■□
Skill level:	■■■■□
Interest:	■■■■■
Value for money:	■■■■□



Action Biker
Commodore 64
Mastertronic
Price £1.99/cass

I'm not sure what KP Skips Clumsy Colin has got to do with this latest game from Mastertronic but it didn't stop me from playing, and enjoying it.

The KP Skips (love the Prawn Cocktail ones) symbol comes up on screen when the game is loading and also appears on the front of the inlay card. I suppose the theory is that if you like the snacks you will like the game.

Anyway, back to the game — which is a whole lot of fun, and the best Mastertronic cheapie I've played yet.

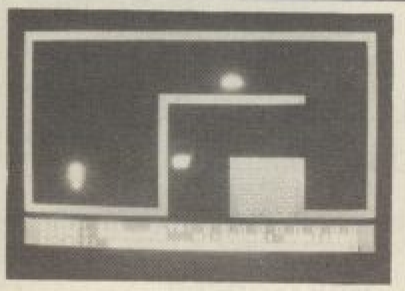
It's a 3D scrolling game, a la *Ant Attack*, only much faster and better. It is no easy task manoeuvring your bike and coping with its gears, speed, and the sharp bends. Stray too far off the road and you will run into a fence, wall, or building.

Certain items are dotted around the town and these can make your race a little easier. The crash helmet is a good precaution. Particularly if you find the turbo charger that puts a little extra zing into your acceleration.

At the end of the game (if you have successfully explored the town) you will find yourself in a drag race. This is the supreme test of your riding skills. As you ride you will need to keep an eye on the information panel below the scrolling view of the town. This tells you how much fuel you've got left. When you are running low, find a petrol station, pull up beside the tanks, and you will automatically be refuelled. The panel also tells you how you are scoring. Bonus points are awarded for speed.

All in all this is a very reasonable buy at £1.99. We tend to urge caution where cheap software is concerned but in this case you can reach for your hard-earned with confidence. **E.L**

Presentation:	■■■■□
Skill level:	■■■□□
Interest:	■■■□□
Value for money:	■■■■■



Enigma
Commodore 16
Commodore
Price £5.99/cass

Enigma is a *Berserk*-type game. You know — a little robot, dozens of rooms full of nasties, and several keys to be collected. The original *Berserk* started out in life as an Atari arcade game, was converted to run on the video games console, and has since been copied on just about every home computer at least a dozen times.

Many of the highly sophisticated arcade adventures now on sale owe a debt to the basic room-exploring design of *Berserk*. It's a brilliant game idea that still works well.

Enigma is a very worthy copy of the game. Colour and graphics are used to good effect.

Each time you enter a new room the background colours change — which is rewarding and helps keep you interested.

Your robot is armed with a laser gun that spits out bright blue shots in the eight different directions of the joystick.

One of the most enjoyable bits of the game is when you enter a room full of nasties — you can spin your joystick through 360 degrees blasting all the nasties in one go.

This is a bit risky, though, and it's probably safer to pick them off in ones or twos.

When you have collected all the keys the game is won. Each time you get a key it registers on a panel at the bottom of the screen — and with a bleep from the C16.

If you liked the original *Berserk* game then you will like this too. It's encouraging to see Commodore supporting the 16 with some good quality games. **E.L**

Presentation:	■■■□□
Skill level:	■■■□□
Interest:	■■■□□
Value for money:	■■■□□

JULY RESULTS

There I stood at the Gates of Dawn with a huge boxful of entries for last month's Screen Scene Competition in my bag.

It weighed a ton as several thousands of you liked the idea of writing a short story that included the names of all of the games we reviewed in Screen Scene in June.

After much argument over who should win, the CU team finally decided on Pauline Britton's entry. Pauline, of Cartmell Terrace, Darlington, in Co Durham, stuck closely to our request to "keep it short and interesting". Here is her winning entry:

"There I stood at the *Gates of Dawn* with my *Ghettoblaster* by my side. Over to the right was a *Dark Tower*, a *Tower of Evil*. It was beyond the *Realm of Impossibility* that I could buy a *Big Mac* here.

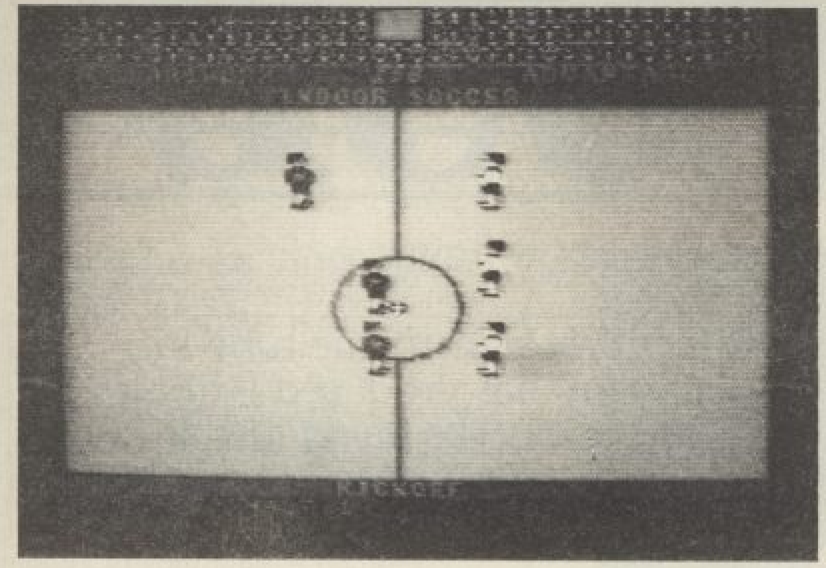
I had travelled to the *Moon Cresta* for the annual games, in the *Sky Jets* were flying and the *Glider Pilot* flew his *Doodle Bug* in a *Strange Loop* just missing a *Boulder*. *"Dash 2* late" said a hung-over *Super Gran*. "Suffering from *Grog's Revenge* eh!" enquired *Jonah Barrington*. *"Squash* is what you should stick to. *Hi Bouncer Mind'er* over there she's drunk." At this along came *Bounty Bob*. *"Strikes Back* on" he told them, "all because *Stringer* was *Entombed* in the *Rock. Man* that was some *Operation, Whirlwind* got up and the *Super Pipeline* was blocked. We thought it was a case of *RIP*, but *Brian Blood Axe*'d his way through so he could *Carry On Laughing*." *"Blagger Goes to Hollywood* tomorrow" said *Berks II* and *III* in unison, but no-one took any notice as *Roland's Race* was about to begin. It was no ordinary race as it included *Spooks*, among them were *Talla*, *Dega* and a group from the *Theatre*. *"Europe* the gates together" said *Spy, Hunter* of the town. "Fasten it to the *Rock 'n' Bolt* it down". Indoors the *Cave Fighters* were getting ready to begin their *Operation, Sword, Fish* and other strange weapons at the ready. All in all it was one bumper package of games."

Five other entries are worthy of mention. Colin Hoggard's for pure cheek. He thought of a clever way of presenting all the games in one long list. "There I stood" etc "An announcer came on the radio: 'The winner of the Commodore User great software competition for the shortest story is Colin Hoggard. He wins the following". Clever Colin, too clever.

Roy Beaufoy also gets a mention for submitting his entry on a cassette in program form. Well done Roy. Andy Clarke of Atherstone, Marc Foreman of Leeds and Paul Oldmeadow of Sheppey were also strong contenders in the final shortlist.

Thanks to everyone who entered — we haven't enjoyed judging a competition so much for ages.

COMPETITION



Five Aside
Commodore 64
Anirog
Price £5.99/cass £8.95/disk

Anirog follow up their last sports success with a five-a-side football game and a penalty shootout competition for one or two players. If you bought *Slap Shot*, though, you're going to get a severe case of deja vu.

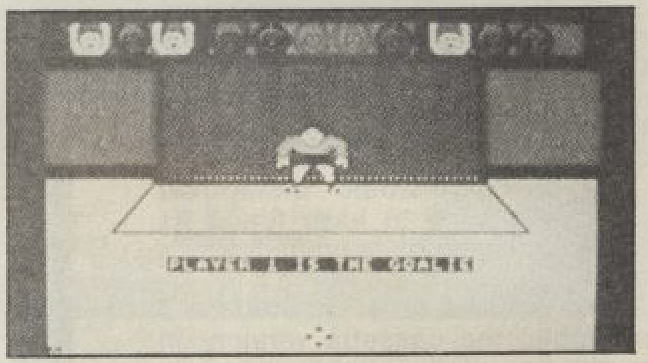
What crafty old Anirog have done is keep the old program and change the graphics so the men look like footballers. This means that the ball is constantly in play just as it is in the real thing. However, it ricochets around the pitch like nobody's business and sounds just like a puck. All the features of the ice hockey game are still there, and some of the faults too.

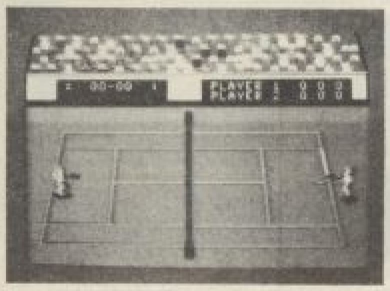
Most out of place is the roughing facility which allows you to stand over an opponent, hit the joystick button and dump him on the ground. Too much of the dirty stuff and you give away a penalty for roughing. The penalty is simply a kick-off to the other team. Come on, Anirog, you could've changed the rules for this bit at least! If you persist in fouling a player you run the risk of provoking him to turn round and slug it out with you. This results in each side getting a penalty. Bizarre rules!

The better option in this game is the penalty play-off. You take penalties alternately against your opponent, acting both as kicker and keeper. Graphics here are better, with a large chunky keeper, although the goal is a bit small and the ball a bit large. You also have few shooting options with the joystick.

Sound is often the best thing about Anirog products, and this game features speech such as 'he's scored', whistling and cheering. 'Here we go' plays throughout. At the price it's not bad value, but it seems daft putting out a football game unless it's going to be an improvement on the Commodore version. Nor is it worth buying if you bought *Slap Shot*. **M.P**

Presentation:	■■■□□
Skill level:	■■■□□
Interest:	■■■□□
Value for money:	■■■■□





International Tennis
Commodore 64
Commodore
Price £5.99/cass

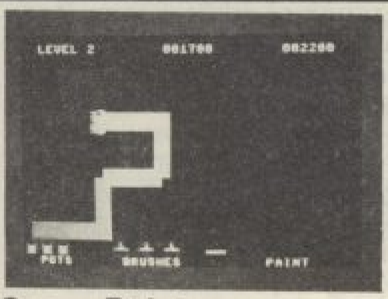
Commodore has a well-earned reputation when it comes to sport simulations. *International Soccer* set the standard for everybody else, and their recent basketball game demonstrated that the style was still way ahead of all the opposition. Supersoft's brief to their programmer when they were producing a cricket program was for it to be the equivalent of Commodore's Soccer. So with a new release from Commodore you'd expect them to stick with what is, after all, a successful format. Wrong.

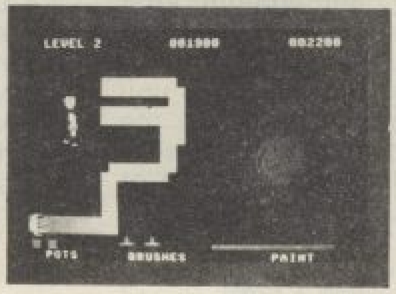
Gone are the chunky figures of old, gone is the smooth movement and definition there once was. Gone is programmer Andrew Spencer. In place of all these attributes is something that is not awful, but merely average. The major problem lies in the gamesplay. As before, the ball has a 3D effect shadow, but because the rest of the game is rather two dimensional and the shadow is so small, it is very difficult to pick up the path of the ball. You're likely to be standing on one side fully expecting to receive the ball on the backhand and end up having to run across court. This is a major obstacle to enjoyment.

In contrast to Activision's *On-Court Tennis* (reviewed last month) you have to move your player to the ball and play the stroke. The eight different joystick directions allow eight strokes such as 'short cross down' and 'medium cross up'. You will not master this game immediately. It is very difficult to hit a ball on the run, because you are moving the joystick in one direction and as soon as you hit the fire button you will hit it in that way.

Serving is reasonably simple but that is where it ends. You need to be able to rally well and to do that you are going to have to spend a lot of time mastering the controls. I get the impression this has been a rush job to get it out for the Wimbledon bug that grips the country for two months every year. **M.P**

Presentation:	■■■□□
Skill level:	■■■□□
Interest:	■■■■□
Value for money:	■■■□□





Crazy Painter
Commodore 64
Pocket Money Software
Price £1.99/cass

Normally on "Painter" games you have to zip round a grid avoiding chasers summoned up from the depths of the author's imagination. Here you have to coat the entire screen through eight levels of difficulty while suffering from the attentions of meddlesome oafs. Each creature or object will spoil your handiwork in a variety of ways. Dogs plough through, bubbles burst and splatter away a sizeable chunk while worms . . . well, worm their way erratically across pristine top coats. There are also paint-pot and brush nickers hell bent on preventing you completing the eight screens. While this is going on a continuous medley is churning out from the SID chip.

Not the most exciting of games to be sure but it is different and well worth the asking price especially to our younger brethren. 'Cheapies' often reflect the state-of-the-art of two years previous which is okay if it's a simple game you're after.

Looking at the titles available for the Dragon it is hoped that Steve Bak will convert a few for the 64 to gee up the budget market further. **L.S**

Presentation:	■■□□□
Skill level:	■■■□□
Interest:	■■□□□
Value for money:	■■■■■

:COMPOSE

Activision's Music Studio reviewed

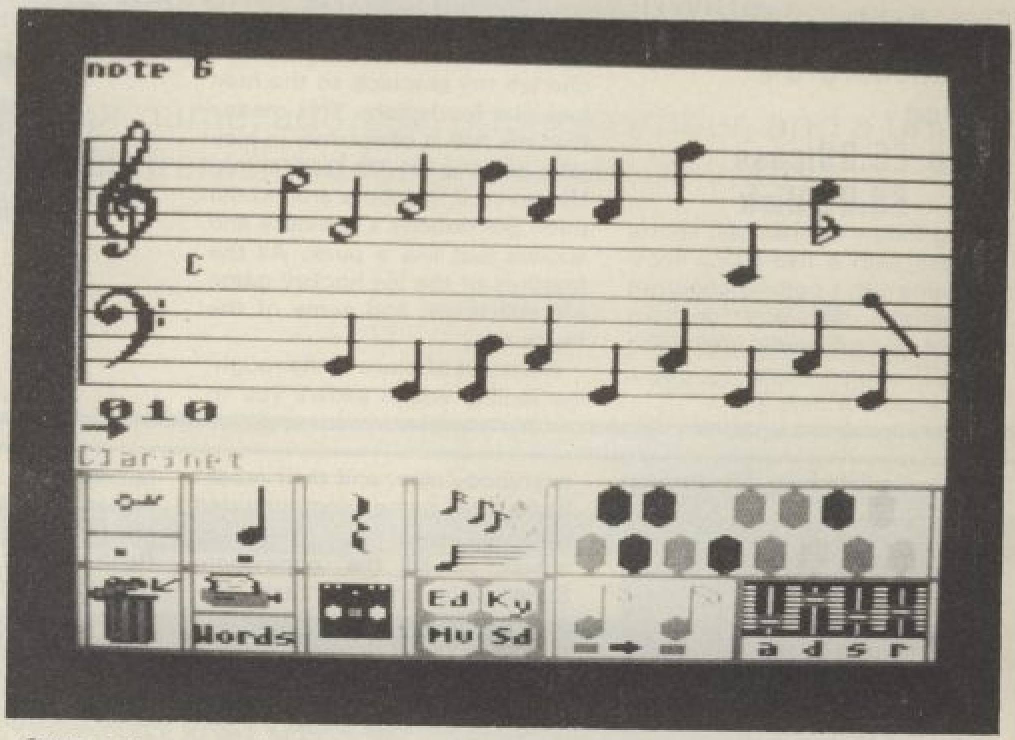
by Fred Reid

Remember the impressive rendering of the *Ghostbusters* theme tune in Activision's megagame? Now, that same company has produced a music composer program for the Commodore 64 that looks like being just as clever: it lets you use colour and even write your own lyrics. Producing a smash hit couldn't be easier?

There's probably been more than enough music composer/synthesizer packages developed for the Commodore 64, most of them had some pretty severe limitations. What a pleasant surprise to discover that Activision's beautifully written **Music Composer** package seems to have found its way round most of its predecessor's hang-ups.

Two versions of Music Studio are available: the cassette version on review here and a slightly more advanced version for disk users. It will cost you £14.99 on cassette and £19.99 on disk.

In both cases, the software arrives in a library-sized case along with a truly pocket-sized manual (comprehensive despite its size), and a supplement for users of the cassette version. In any case, the Music Studio manual provides all the necessary information to get you started quickly.



Stave and menu options appear on the same screen—just choose your note and place it on the stave

Getting started

Loading from cassette takes just over three minutes and while you're waiting you're entertained with a hi-res picture of a studio foyer. When loading is completed, you are requested to 'Press Stop on Tape', and select an input device. Music Studio lets you use either a joystick or a touchpad (such as the Koalapad) to manipulate the 'baton' shaped cursor.

The *music editor* screen is dominated by the stave (the ten lines that you write music on), with the lower third of the screen given over to the 'menu'. Each item on the menu is depicted by a picture or symbol. When the cursor rests over the picture of the function you wish to use, simply pressing the fire-button will set things in motion.

Perhaps the most graphic example (no pun intended) is the trash can. Positioning the cursor over the trash can picture and pressing the fire-button twice (to prevent accidents) will completely erase all the music, leaving you with a blank stave. Similarly, there are pictures of a printer (for printing your music), a cassette (for load and save options) etc.

Write your music

Writing music couldn't be simpler. Move the cursor over to the note symbol, press the fire-button to select note entry and again to alter the note length (from semiquaver to semibreve) if you desire, and move the cursor up to the stave. As you reach the bottom of the stave the cursor is replaced by the selected note and you simply position it at the desired place on the stave.

Pressing the fire-button fixes the note in place and you can then position another note. As the note moves up and down the stave, Music Studio plays that note so you know where it ought to go.

Adjacent to the note symbol in the menu are symbols for rests, dotted notes, incidentals (sharps and flats), and even triplets (a triplet is three notes played in the same length of time that you would normally play four notes).

When you have entered a few notes, you'll be eager to hear what you have written. Simply point the cursor at the picture of an ear, press the button, and Music Studio obliges with a note-perfect rendition of the masterpiece you have just written.

A full range of editing commands are available; just select the appropriate symbol with the cursor and Music Studio responds. Various options include delete and insert a column (of notes), move a block of notes, copy a block of notes to another part of the stave etc. Selecting the picture of a synthesizer panel will get you through to the sound editor screen.

Change your sounds

Editing sounds is every bit as easy as editing music, perhaps even easier! Along the bottom third of the *sound editor* screen is a menu of

YOURSELF:

the default preset sounds that are automatically loaded with the main program. From this menu you can select such diverse sounds as Clarinet, Flute and Tuba from a choice of sixteen definable sounds.

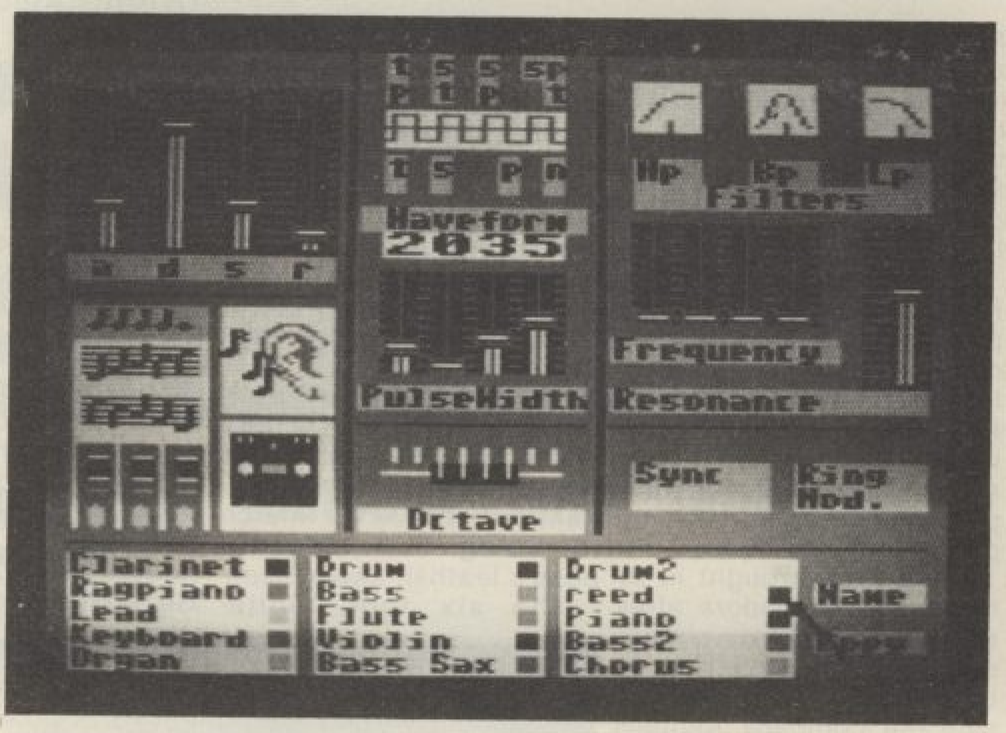
To alter a sound to your own specification simply select the function you wish to alter (wave shape, envelope, filter settings etc) and modify to your heart's content.

Most of the sound functions are adjusted by selecting a fader with the cursor, pressing the button removes the cursor and allows up-down control using the joystick.

You have the choice of playing back a composition while you alter the sounds (select the ear symbol again) or selecting a continuous up-down scale of variable speed (very useful for adjusting the envelope controls).

If you wish, you can build up a whole collection of instruments and sound effects, name them, and save the whole lot to cassette (use the cassette symbol on this screen for saving sounds) for permanent storage.

The package's ease of use is not far removed from controlling an actual synthesizer panel, thanks to the pretty stunning graphics. To exit the screen, you simply take the cursor off the bottom of the page, press the fire-button and you arrive back at the music editor screen.



Sound Editor screen is attractively laid out and contains a huge variety of editing functions

Paintbox mode

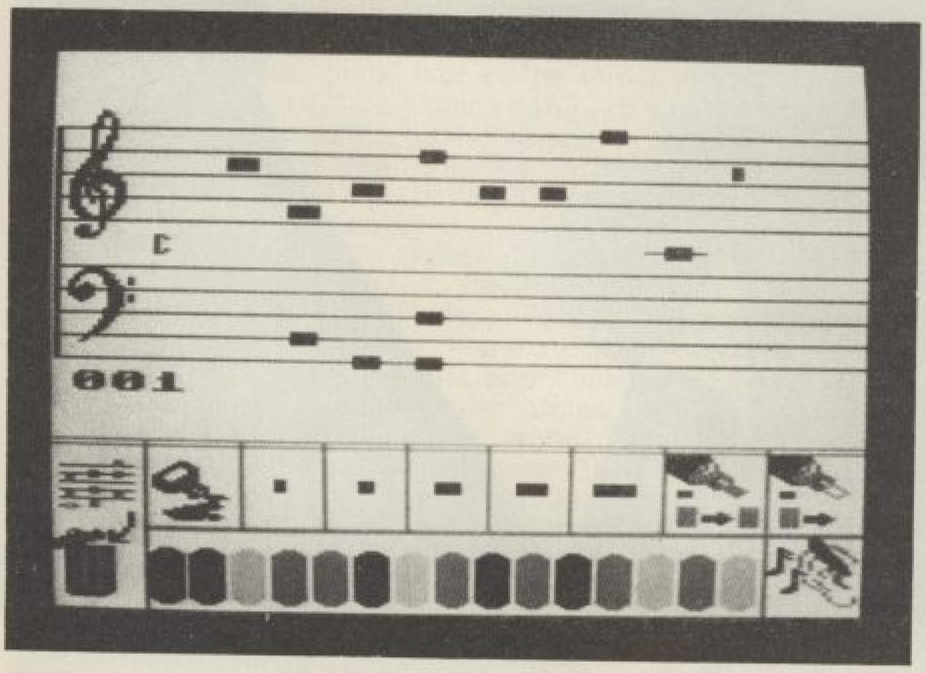
The manual describes this mode as a 'free-form method of composing' and it's designed for people who don't feel comfortable using real musical notation. So you use colours and shapes instead of choosing a real instrument and a series of notes: the idea is to 'paint' onto the stave rather than compose.

Although this, to me, seemed the least attractive part of Music Studio, it is intended to be a short-cut method of producing music. Moving back to the Music Editor screen converts your composition into standard musical notation. Like other compositions, these can also be saved to tape or disk.

Finally, an unusual facility in Music Studio is that it lets you write lyrics under the notes you've just composed. Once again, all you need do is choose the 'words' option on the menu, point the baton to the note to be written under, and type the word in from the keyboard. There's room for up to four verses.

Conclusions

Overall, this is a beautifully thought out and implemented piece of software. It's not only easy to use but pleasant to look at. The manual may be only pocket-sized but it's well documented — and it even gives you a brief tutorial on music theory. Apart from all that, it's very reasonably priced and must represent good value. □



Paintbox Mode for colourful free-form composing

- **The Music Studio**
- **Activision**
  184 Regent Street
  London W1
  01-439 7731
- **Price: £14.99 (tape)**
  £19.99 (disk)
- **Highly recommended**

Next month we'll be looking at Island Logic's The Music System, just converted from the BBC machine for the Commodore 64.

How do you get to talk to the world boss of Commodore? With difficulty. Eugene Lacey tracked him down to his plush Philadelphia office for his views on the new 128, the long-awaited Amiga and the future of Commdore.

Marshall Smith is the man at the very top of Commodore. Or — as a fellow executive put it when I visited the firm's headquarters at Westchester, Philadelphia, USA — "he's over the whole enchilada".

A pretty huge enchilada it is too, with 900 employees based at Westchester, another office on the West Coast of America, factories and offices in the UK and throughout Europe, as well as a number of component manufacturing plants in the Far East.

Smith was brought in to head up Commodore after the departure of charismatic Jack Tramiel in a boardroom battle which saw the company founder depart, taking his two sons with him, (and half of the top brass of the company), to take over Atari.

The battles at Commodore dominated the computer press headlines in the US when Tramiel left. The former typewriter repairman and calculator tycoon creates news like few others in American hi-tech. Tramiel is a hard talking ("business is war") tough dealing embodiment of the American business dream. A first generation immigrant and self-made millionaire.

Getting rich in the US decrees status like nothing else. But to do it all by yourself and from humble roots is the British equivalent of scoring the winner for England in a World Cup Final, getting a first at Oxford, and becoming Prime Minister before the age of forty all rolled into one.

To say Marshall Smith had a tough act to follow is a huge understatement. But despite all of this I found no evidence of the ghost of Tramiel stalking the corridors of Westchester.

What I did find was a buzz of excitement about two new computers — the C128 and the Amiga — and a belief that these new machines will rekindle Commodores flagging fortunes in the cut-throat computer market.

The man at the top surveys this new optimism from the second floor of the rambling Commodore buildings that spread over several hundred acres of beautiful Pennsylvania countryside.

The office itself is straight out of "Dallas". About the size of an aircraft hanger with suitably gigantic furniture to match including the standard boss's leather, swivel seat.

The six foot, white-haired, world boss of Commodore settled himself behind his desk and kicked off by saying some nice things about the UK.

"It's always been a very important market to us . . . and some of our best software has come from there". But what about the competition, Amstrad, and Sinclair, can Commodore regain some of the lost ground won by these competitors?

"Clive Sinclair seems to be something of a folk hero in the UK. But it looks as if he stubbed his toe with the QL." And Amstrad? "I want to go over to England and talk to some people, shop keepers and users about that. I think Amstrad will be our main competitor in Europe this Christmas".

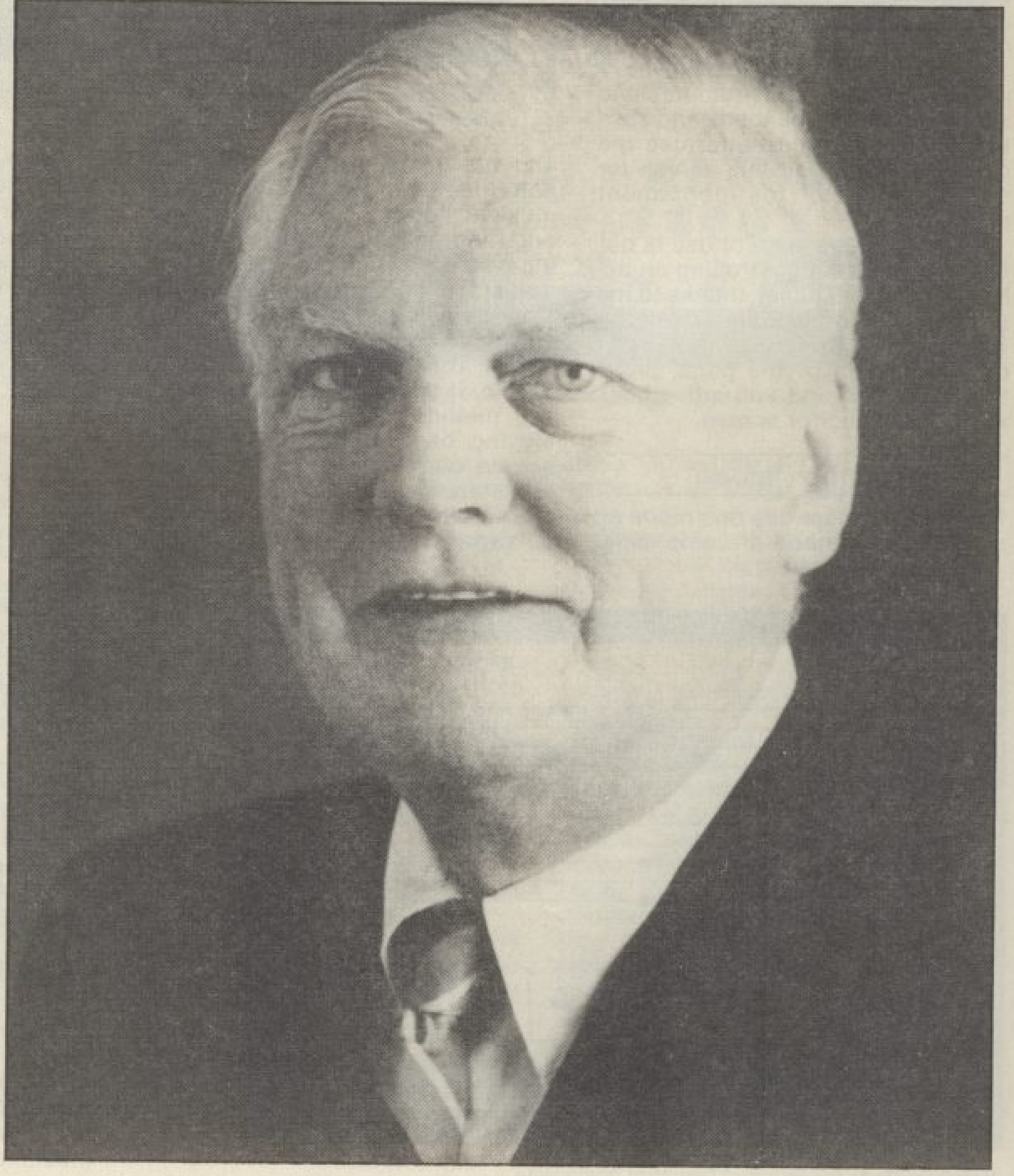
New computers, new hopes

Generally Marshall Smith is bullish about Commodore's performance for the remainder of '85. With a third quarter loss of nearly 20 million dollars he needs to be confident about the future. His main hopes are pinned on the new computers — principally the 128 and the Aniga.

Commodore estimate that 28% of existing 64 owners in the US are going to upgrade to the 128. Extensive research and machine tests have been carried out with user groups there and many of the glowing comments from loyal Commodorians plaster the corridors in Westchester.

"We put them there to get the people around here hyped up a bit", says Smith with a smile, but quickly adds that all of the excitement about the 128 and praise from users is entirely justified.

Humour seems to be a



major part of Smith's style. When a waiter interrupted his speech at a recent press reception by dropping a tray of drinks he had the confidence to quip "is that Tramiel at the back".

Commodore. Certainly the firm are going to need all of their muscle as they go into the next phase of the war for market shares in the home and business computer industry.

the pipeline".

The American computer industry is clearly excited about the Amiga — its advanced specifications and the software it promises — though one audience is yet

grammers can't resist those graphics chips, but the business software is going to be more problematic.

Big business software houses don't like non-stan-

GOING FOR THE PRESIDENT

Commodore International boss, Marshall Smith, interviewed

But if it's a jolly, elder statesman public image, its every bit the shrewd business administrator with years of boardroom experience, behind the scenes.

Smith moved in cautiously to fill the management vacuum left by the departure of the Tramielites. The young team he has assembled around him have pretty impressive credentials — hand picked from companies like Coca Cola and Apple. In American business terms that's pretty high up the ladder.

Marshall Smith's own credentials for heading up the world's largest manufacturer of home computers is no less impressive. Michael S Tomczyk said of him in his book about Commodore, "a 54-year old manufacturing and finance specialist with extensive experience in the rough-and-tough steel industry".

Immediately prior to joining Commodore, Smith was President and Chief Executive of a huge manufacturing company called Thyssen — Bornemisza. He is used to managing multi million dollar companies.

With its growth pattern of the last few years Commodore is now one such company. That sheer size is now both the strength and potential Achilles Heel of

This phase of the battle will take them into competition with the real big boys in the business — IBM and Apple. If Commodore can be said to have a secret weapon reserved for this conflict it must surely be the Amiga. The 32-bit business machine with its 6800 processor and now famous customised chips code named 'Portia', 'Agnes', and 'Daphne'.

The Atari Attack

I asked Marshall Smith if the Amiga wasn't just the same as the Atari ST. "There is just no comparison with the ST. Anybody can pick up a Motorola chip for $8 and build a machine around it, but it can't do half of the things that the Amiga can . . . it can't multi task. The sound, colour and graphics on the Amiga are better in every respect". So you are dismissing Atari? "I never dismiss competitors . . . any time I've done that before I've lived to regret it".

Marshall Smith expects IBM and Apple to respond to the Amiga: "They both have world wide reputations . . . IBM is a world standard and Apple is very strong here in North America. We know that Apple is working on a colour Mac. IBM too are known to be working with graphics and they have the PCII in

to be convinced, the retailers.

What they want to know is, at between $1000 and $1500, who is going to buy it? Marshall Smith has the answer.

"It's not a beginners' machine, though for some people it will be their first computer. Business at home is what Amiga will offer. I expect it also to appeal strongly to a computer literate audience".

Commodore expect the Amiga to be in their range of machines for a long time. "The machine is going to last . . . we are looking at a whole family of machines". How long exactly will it last? "I'll settle for — what was the Apple II? — eight years? — that'll do" says Smith.

Amiga means business

Clearly Amiga will also have to compete in the business computer market. One question mark over the machine's viability here will be third party software support. Home entertainment software is no problem with Electronics Arts (12 titles) Broderbund, Mindscape, Activision, Infocom, and First Star all beavering away writing games on pre-production machines. No doubt there is going to be lots of games — the pro-

dard operating systems like Amiga's "Intuition". It's going to take some effort therefore to persuade the likes of Lotus Development and Ashton Tate to convert their popular business packages to run on Amiga.

This problem could be solved by a rumoured MS DOS cartridge for the Amiga. But Marshall Smith is not putting everything on Amiga in the What Will Eventually Be The Standard In Operating Systems guessing game. He has a finger in almost every pie: two PC DOS clones, a German built Unix machine, and even the new C128 running the trusty old CP/M. The strategy seems to be watch and wait and ignore nothing.

Perhaps the real question is not what operating system Commodore will eventually nail its colours to but where does the company want to go. Business, home, or both?

Marshall Smith claims to have a clear view of this even if no one else seems to: "Our turf is the home, the school, and the office" he told a press gathering in Chicago in June. If he means it he is going to need all of his big business experience to pull all of that off against IBM, Apple and the Japanese in the years ahead. □

Since the dawn of the computer age the prices of home computers have been steadily falling.

But, remarkably, the price of a genuine, full-blooded disk drive has remained almost constant.

Constantly expensive.

You'll be lucky to pick up a decent one for less than £200 in the shops.

Now, however, you can have one delivered to your doorstep for only £119.95 (including VAT and postage and packing).

The new Triton Quick Disk from Radofin.



Its specifications are every bit the equal of a £200 disk drive, as a glance at our card above will confirm.

Quick Disk uses the very latest technology to store up to 100K on high quality Hitachi Maxell double-sided 2.8" disks.

Its disk operating system (DOS) uses standard commands so it is truly easy to use, as any computer novice will be glad to hear.

FROM 0 TO READY IN 7 SECONDS.

To put the Triton Quick Drive through its paces we used an ordinary computer game – Jet Set Willy.

From tape it took 170 seconds to load.

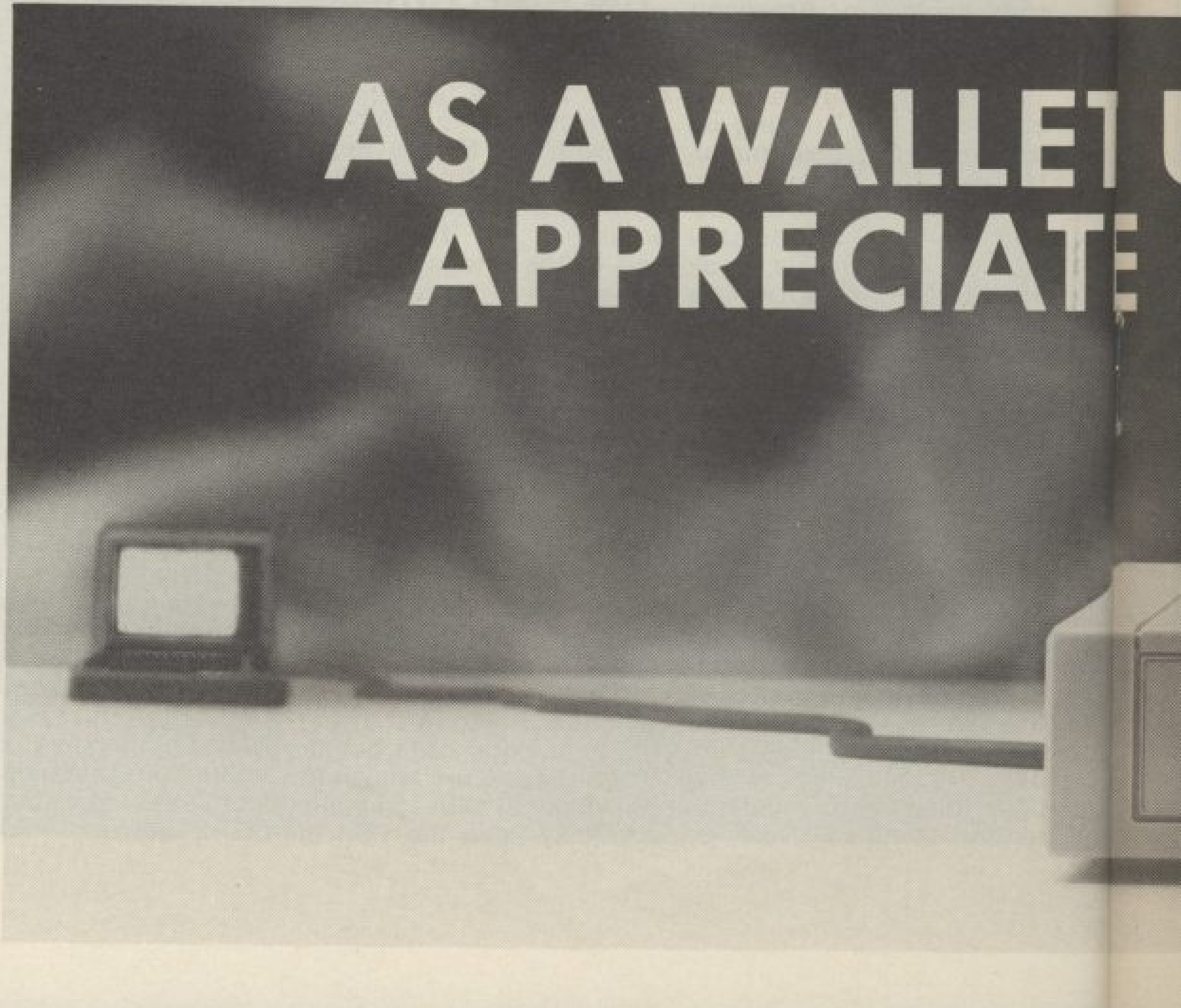
When loaded from the Triton Quick Disk it took a mere seven seconds. That is 163 seconds less than the tape and certainly as quick as most disk drives on the market.

While the price will be compatible with most wallets, there is a Triton Quick Disk compatible with most computers – Commodore 64, Spectrum (16K, 48K and Spectrum plus), Aquarius, Dragon 64 and all MSX Systems.

And, naturally, included is an interface box plus all connecting cables and instructions.

In short, what we deliver is a complete, genuine disk drive. Not a tape or wafer in sight. All for only £119.95.

And when it comes to speed of loading, the Triton Quick Disk more than lives up to its name.



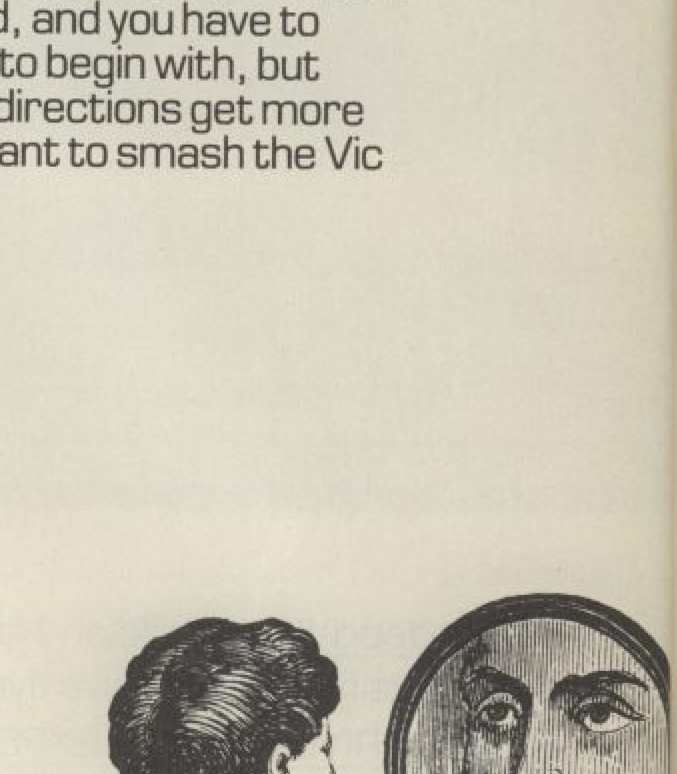
Spy Eyes

— for the Unexpanded Vic

by P. Donahoe

Spy Eyes is an excellent game based on a very simple idea. The screen flashes a list of directions for a mere split second, and you have to duplicate them on the keyboard. This is a doddle to begin with, but Herculean feats of memory are required as the directions get more complex. One of those games that makes you want to smash the Vic to pieces!

```
10 LET SP=0.3
20 PRINT CHR$(147)
25 LET H$="NOBODY"
30 LET H=0
40 LET K=0:LET S=0:LET L=1
50 PRINT " >>SPY EYES<<":PRINT
60 PRINT "PRESS G TO GO"
70 GET C$
80 IF C$<>"G" THEN GOTO 70
90 PRINT CHR$(147)
100 IF K=5 THEN LET L5L+1:LET K=0
110 LET M$=""
120 LET C$=""
130 FOR T=1 TO L
140 LET N=RND(1)
150 IF N>=0.5 THEN PRINT"LEFT":LET M$=M$+"L"
160 IF N<0.5 THEN PRINT"RIGHT":LET M$=M$+"R"
170 NEXT T
180 LET K=K+1
190 FOR D=1 TO 200*L*SP
200 GET C$
210 NEXT D
220 PRINT CHR$(147)
230 LET E=0
240 PRINT "WHAT WERE THE DIRECTIONS"
250 FOR T=1 TO L
260 PRINT "?";
270 GET C$
280 IF C$<>"R" AND C$<>"L" THEN GOTO 270
290 PRINT C$
300 IF C$<>MID$(M$,T,1) THEN LET E=1
310 NEXT T
320 IF E=0 THEN LET S=S+L
330 IF S>=H THEN LET H=S
340 IF E=1 THEN PRINT "YOU LOST HIM! SOME SPY!"
350 PRINT "SCORE=";S
360 PRINT "HIGH SCORE5";H
365 IF E=1 AND S>H THEN LET H=S:GOSUB 410
370 IF E=1 THEN GOTO 40
380 FOR D=1 TO 500*SP
390 NEXT D
400 GOTO 90
410 PRINT "THAT IS A HIGH SCORE"
420 PRINT "PLEASE PUT YOUR NAME IN"
430 INPUT H$:RETURN
```



Surprise Poem

The Great Bard couldn't have done better than this: a poem, appearing miraculously on your screen, letter by letter. But there's a twist in store at the end. The author has cleverly coded this verse so you can't read it until you've actually typed it in and RUN it.

"horrifying" — *Birdwatchers Weekly.*

```
1000 A$(1)="BT!J!BXPLF!POF!NPSOJOHXIFO!BMM!TXFFU!UIJOHT!BSF!CPSO"
1010 A$(2)="B!SPCJO!TBU!VQPO!NZ!TJMM-!!!!!!!!!!!!!!!!!!!UP!FDIP!UIF!DPNJOH!EBXO"
1020 A$(3)="IF!XBT!GSBHJMF!TXFFU!HBZ!BOE!ZPVOH!!!!!!!!!!BOE!TP!TXFFUMZ!EJE!IF!TJ
OH"
1030 A$(4)="UIBU!UIPVHIUT!PG!IBQQJOFTT!BOE!KPZ!!!!!!!!!!JOUP!NZ!IFBSU!EJE!TQSJOH
"
1040 A$(5)="BXBLFOJOH!GSPN!NZ!TMVNCFST!!!!!!!!!!!!!!!!!!J!DSFQU!TPGUMZ!GSPN!NZ!C
FE"
1050 A$(6)="J!HFOUMZ!DMPTFE!UIF!XJOEPX-!!!!!!!!!!!!!!!!!BOE!DSVTIFE!IJT!CMPPEZ!I
FBE"
1055 PRINT"[CLS][BLU]"
1060 FOR I=1 TO 6
1070 FOR J=1 TO LEN(A$(I))
1080 PRINTCHR$(ASC(MID$(A$(I),J,1))-1);
1090 FOR K=1 TO 500:NEXT K
1110 NEXT J
1120 PRINT:IF I/2=INT(I/2)THEN PRINT
1125 FOR K=1 TO 1000:NEXT K
1130 POKE 36879,24+I:NEXT I
1140 POKE 36879,110
```

— for the Unexpanded Vic

by A. Baker



PRINTERS BARGAINS

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RING NOW FOR SEPTEMBER ISSUE!

Caverns of Mars

— for the Commodore 64

by Andrew Ridgwick

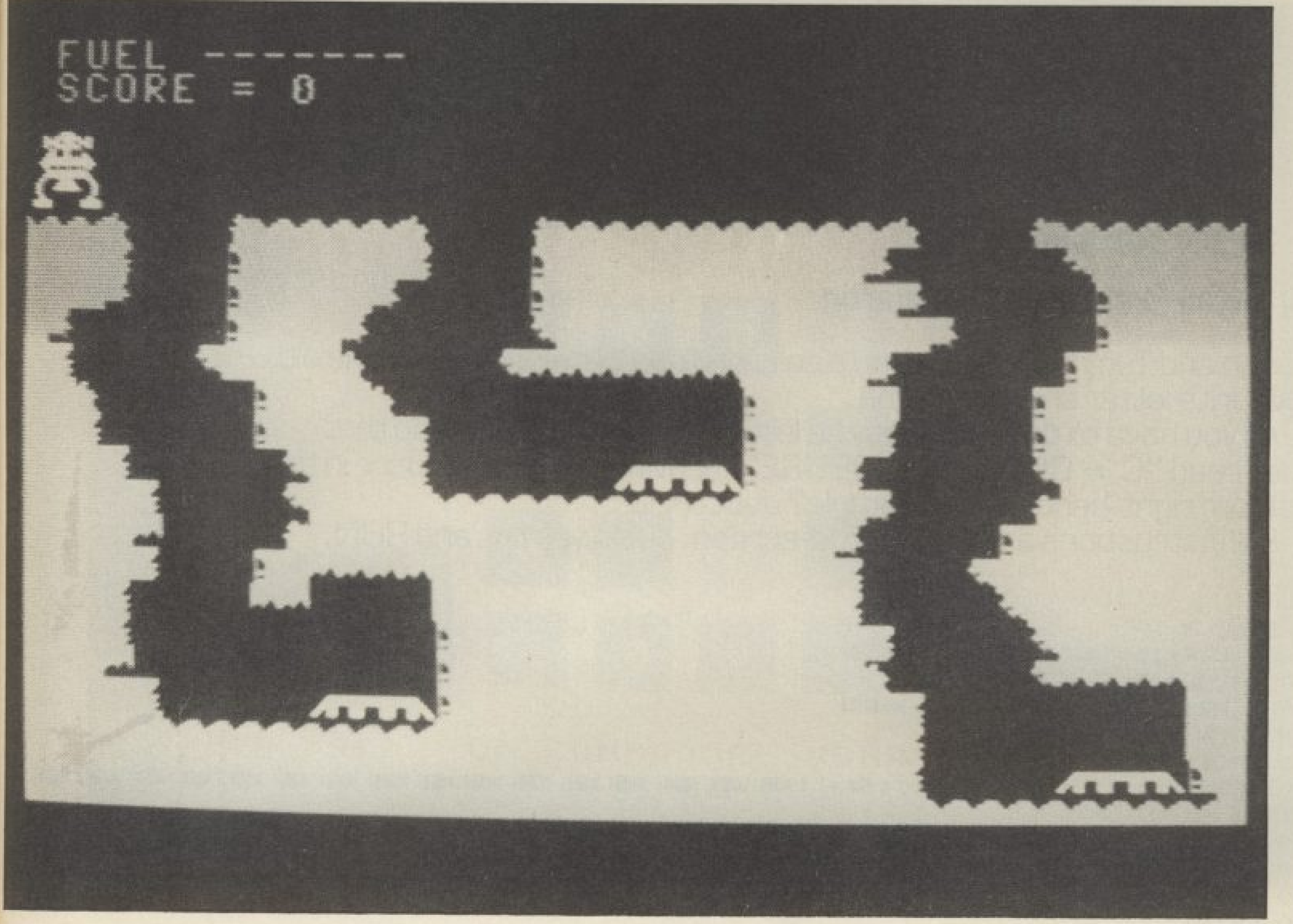
Andrew Ridgwick has produced a game that tests your dexterity more than your zapping skills. Your mission is to guide the spacecraft down through the cavern and touch-down safely on the landing pad.

There's three caverns to negotiate, each getting more difficult. Use the 'A' key as the left thruster, 'D' for right and F1 to go down. Movement is very smooth and precise but don't waste too much time because your fuel is running out.

Beeping sounds, a good crash sequence and a score table complete this compact but addictive little game.

```
5 GJ=0
10 PRINTCHR$(147):POKE53280,0:POKE53281,0
20 PRINT"[4CD][8CR][L RED]THE [CD][YEL]CAVERNS [CD][PUR]OF [CD][GRN]MARS"
30 PRINT"[10CD][3CR][CYN](C) MAR 1985[CD][2CR][L BLU]ANDREW RIDGWICK"
50 POKE52,48:POKE56,48:CLR:POKE56334,PEEK(56334)AND254
55 POKE1,PEEK(1)AND251
60 FORI=0TO511:POKEI+12288,PEEK(I+53248):NEXT
70 POKE1,PEEK(1)OR4
71 POKE56334,PEEK(56334)OR1
72 POKE53272,(PEEK(53272)AND240)+12
75 FORI=12288TO12288+7:POKEI,255:NEXT
76 FORI=12424TO12424+7:READX:POKEI,X:NEXTI
77 FORI=12368TO12368+7:READX:POKEI,X:NEXTI
78 FORI=12416TO12416+7:READX:POKEI,X:NEXTI
80 FORZ=12480TO12536+7:READX:POKEZ,X:NEXTZ
85 V=17
90 POKE54296,15:POKE54278,12:POKE54277,15:POKE54276,V
100 READH:READL:READD
101 GETD$:IFD$=CHR$(136)THEN200
105 IFH=-1THEN150
106 GOTO110
110 POKE54273,H:POKE54272,L
115 FORT=1TOD:NEXT
120 POKE54277,0:POKE54278,0:POKE54276,0
125 GOTO90
150 POKE54277,0:POKE54278,0:POKE54276,0
200 PRINTCHR$(147)
210 PRINT"[2CD][2CR][CYN]A[2SPC]=[2SPC][YEL] LEFT THRUSTER"
215 PRINT"[2CD][2CR][CYN]D[2SPC]=[2SPC][YEL]RIGHT THRUSTER"
220 PRINT"[3CD][CR][CYN]F1[2SPC]=[3SPC][L RED]MAIN THRUSTER"
230 PRINT"[7CD][11CR][L BLU]HIT F1 TO START"
235 GETY$:IFY$<>CHR$(133)THEN235
250 PRINTCHR$(147):Q$="[L BLU]"
260 PRINT"[HOM][ORG][4CD]"
270 PRINT"↑↑↑X[3SPC][↑↑↑↑↑X[3SPC][↑↑↑↑↑↑↑↑↑↑↑X[3SPC][↑↑↑↑↑↑"
275 PRINT"[CU]@@@£[3SPC]]@@@@@£[3SPC]]@@@@@@@@@@Y[5SPC]Z@@@@@"
280 PRINT"[CU]@@@Y[3SPC]]@@@@Y[4SPC]]@@@@@@@@@@@Y[5SPC]]@@@@"
285 PRINT"[CU]@Y[5SPC]]@@@Y[5SPC]Z@@@@@@@@@@@@Y[4SPC]]@@@@"
290 PRINT"[CU]@£[4SPC]Z@@@@X[4SPC]Z←←←←←←←←@@@@Y[5SPC]]@@@@@"
295 PRINT"[CU]@@X[5SPC]]@@@X[11SPC]]@@@@[4SPC]]@@@@@@"
300 PRINT"[CU]@@£[5SPC]]@@@@£[10SPC]]@@@£[4SPC]]@@@@@@"
```

```
305 PRINT"[CU]@@@£[5SPC]Z@@@£[5SPC][YEL] QPPJ[ORG]]@@£[5SPC]Z@@@@@@"
310 PRINT"[CU]@@@@£[4SPC]Z@@@@↑↑↑↑↑↑↑↑↑↑↑@@@@Y[4SPC][@@@@@@"
315 PRINT"[CU]@@@@←[4SPC][@@@@@@@@@@@@@@@@@@Y[4SPC]]@@@@@@@"
320 PRINT"[CU]@@@@£[3SPC]]@←←←←@@@@@@@@@@@@@@@£[3SPC]Z@@@@@@@@"
325 PRINT"[CU]@@@£[4SPC]←←[4SPC]@@@@@@@@@@@@@@@£[4SPC]Z@@@@@@@"
330 PRINT"[CU]@@@£[10SPC]]@@@@@@@@@@@@@@£[4SPC]Z@@@@@@"
335 PRINT"[CU]@@@←[10SPC]]@@@@@@@@@@@@@@X[4SPC]Z←←←←@@"
340 PRINT"[CU]@@@@£[4SPC][YEL] QPPJ[ORG]]@@@@@@@@@@@@@@@£[8SPC]@@"
345 PRINT"[CU]@@@@@↑↑↑↑↑↑↑↑↑@@@@@@@@@@@@@@@@@@£[8SPC]@@"
350 PRINT"[CU]@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@£[3SPC][YEL] QPPJ[ORG]]@"
355 PRINT"[CU]@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@↑↑↑↑↑↑↑↑↑@"
356 IFGJ=1THEN374
365 POKE2040,13:FORS=832TO832+62:READX:POKES,X:NEXT
374 LV=3
375 PRINT"[HOM][CR][GRN]FUEL ";Q$;"----------------------------------"
380 PRINT"[CR][GRN]SCORE =";SC
400 X=24:Y=70:B=36:UI=20:GJ=1
405 V=53248:POKEV+21,1:POKEV+39,1:POKEV,X:POKEV+1,Y
406 GETR$:IFR$="A"THENFG=1:GH=0:TY=0
407 IFR$="D"THENGH=1:TY=0:FG=0
408 IFR$=CHR$(133)THENTY=1:GH=0:FG=0
409 IFCV=UTHENPOKE1024+B,32:CV=0
410 IFFG=1THENX=X+1
411 IFB=6THEN605
412 IFB<=15THENPOKE54296,15:POKE54277,12:POKE54278,15:POKE54276,33
413 POKE54273,34:POKE54272,75
415 IFGH=1THENX=X-1
416 IFSC>=500ANDJL=1THENUI=14:JL=0
417 IFSC>=1000ANDFH=1THENUI=9:FH=0
418 IFSC>=1500ANDVM=1THENUI=6:VM=0
420 IFTY=1THENY=Y+1
422 IFPEEK(V+31)AND1=1THEN600
425 IFX>=256THENQA=1:GOTO500
426 POKE1024+B,32
430 IFER=UITHENB=B-1:ER=0
434 POKE54277,0:POKE54278,0:POKE54276,0
435 ER=ER+1:GOTO405
500 POKEV+16,1:POKEV,QA:POKEV+1,Y
505 GETR$:IFR$=CHR$(133)THENFG=0:GH=0:TY=1
506 IFR$="A"THENFG=1:GH=0:TY=0
507 IFR$="D"THENGH=1:FG=0:TY=0
508 POKE54277,0:POKE54278,0:POKE54276,0
510 IFQA>=40THENQA=40
511 IFPEEK(V+31)AND1=1THEN600
515 IFQA<=0THENX=255:POKEV+16,0:GOTO405
516 IFFG=1THENQA=QA+1
517 IFTY=1THENY=Y+1
518 IFGH=1THENQA=QA-1
519 FORT=1TO50:NEXT
520 POKE1024+B,32
521 IFB<=15THENPOKE54296,15:POKE54278,12:POKE54277,15:POKE54276,33
522 POKE54273,34:POKE54272,75
525 IFER=UITHENB=B-1:ER=0
530 ER=ER+1:GOTO500
557 GOTO405
600 IFX=24ANDY=70THEN425
601 POKEV+21,0
602 IFY=187THENCN=10:GOTO701
603 IFY=131THENCN=20:GOTO701
604 IFY=202THENCN=50:GOTO701
605 POKE53280,1:POKE53281,1
610 POKE54296,15:POKE54278,15:POKE54277,12:POKE54276,129
620 POKE54273,1:POKE54272,18
625 FORT=1TO2000:NEXT
630 POKE54280,0:POKE54281,0:POKE54276,0:POKE54278,0:POKE54277,0
635 POKE53280,0:POKE53281,0
```




```
640 FORT=1TO200:NEXT
645 IFRP=1THEN650
646 RP=RP+1:GOTO605
650 IFLV=0THEN660
652 LV=LV-1:Y=70:X=24:FG=0:GH=0:TY=0:RP=0:POKEV+16,0
655 IFB=6THEN660
656 POKE198,0:GOTO405
660 PRINTCHR$(147):POKEV+21,0
665 PRINT"[3CD][3CR]MISSION FAILED"
666 PRINT"[3CD][3CR]ANOTHER MISSION ?"
668 GETY$:IFY$=""THEN668
669 IFY$="Y"THENFG=0:GH=0:TY=0:GOTO250
700 PRINT"[CLS]":END
701 PRINT"[HOM][17CR][15CD]";CN;"*";B
705 PRINT"[17CR][CD]=";B*CN:SC=SC+B*CN
706 X=24:Y=70
707 FORT=1TO5000:NEXT
708 FG=0:GH=0:TY=0:POKEV+16,0
709 PRINT"[ORG][HOM][17CR][15CD]@@@@@@@@"
710 PRINT"[16CR][CD]@@@@@@@@@"
715 GOTO375
1001 DATA0,0,0,15,31,62,110,206,0,0,0,240,248,124,118,115,0,0,0,255,255,60,60,60
1002 DATA0,96,224,248,252,248,248,252,252,252,248,252,254,248,72,0
1003 DATA63,63,127,47,31,11,0,0,0,26,63,31,127,63,63,63
1004 DATA254,254,252,248,254,252,254,252,127,127,95,79,79,127,79,127
1005 DATA0,0,195,239,255,255,255,255,255,255,255,255,251,145,0,0
1006 DATA34,75,500,34,75,500,-1,-1,-1
1010 DATA0,0,0,0,0,0,60,0,6,255,96,7,221,224,6,255,96,1,154,128,3,154,192,7
1011 DATA255,224,15,255,240,6,73,96,3,255,192,7,255,224,12,60,48,24,126,24,24
1012 DATA255,24,24,0,24,12,0,48,63,0,252,63,0,252,0,0,0
```

Mind Boggler

— for the Commodore 16

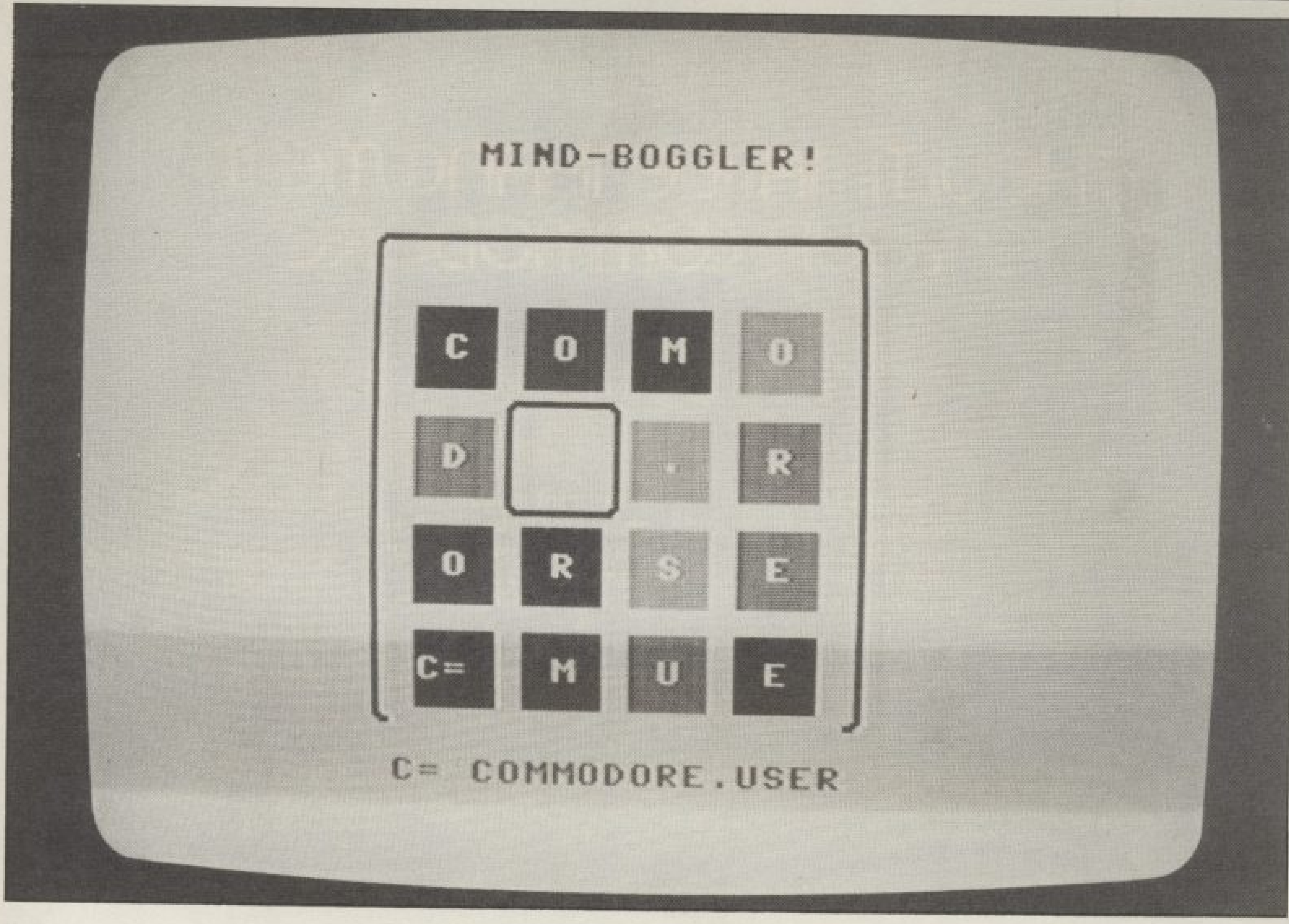
by Jason Evans and Tony Martin

Jason and Tony have produced a colourful computer version of the old favourite letter shuffling game.

All you have to do is arrange the letters inside the square so that they read "C = COMMODORE USER" leaving the blank square in the bottom right-hand corner. Simple? Just try it.

Full instructions are supplied on-screen. Just type it in and RUN.

```
1 SCNCLR
2 AO NZ$(1)="■■    ■■■■C= ■■■■   "
10 COLOR0,2:COLOR4,2:VOL8
19 A NZ$(0)="■■    ■■■■   ■■■■   "
20 DIMN(3,3):DIMNZ$(15)
30 X=0:Y=0:C2$="":C3$=""
40 TP$="————————————":S$="|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■|■■
■■"
50 CX$="      ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ ■■ "
60 CD$="■■■■■":CR$="■■■■■■■■■■":CS$=" ———■■|■■|■■|■■|■■-■■-■■-■■|■■|■■|■■ "
70 BD$="■■■■■■":BR$="■■■■■■■■■■■■"
80 PRINT"
105 PRINT"■■■■■■■■■   MIND-BOGGLER"
110 COLOR1,9,4:PRINT"■            CONTROLS"
120 PRINT"■■■■■■■■■■ I        MOVE LEFT"
130 PRINT"■■■■■■■■■■ P       MOVE RIGHT"
140 PRINT"■■■■■■■■■■ Q        MOVE UP"
150 PRINT"■■■■■■■■■■ Z        MOVE DOWN"
160 PRINT"■■■■■■■■■■SPACE    SHIFT PIECES"
170 PRINT"■      PRESS RETURN TO START GAME"
171 PRINT"■■  WRITTEN BY TONY MARTIN & JASON EVANS"
180 GETA$:IFASC(A$)<>13THEN180
190 NZ$(0)="■■    ■■■■   ■■■■   "
200 NZ$(1)="■■    ■■■■C= ■■■■   "
210 NZ$(2)="■■    ■■■■ C ■■■■   "
220 NZ$(3)="■■    ■■■■ O ■■■■   "
230 NZ$(4)="■■    ■■■■ M ■■■■   "
240 NZ$(5)="■■    ■■■■ M ■■■■   "
250 NZ$(6)="■■    ■■■■ O ■■■■   "
260 NZ$(7)="■■    ■■■■ D ■■■■   "
270 NZ$(8)="■■    ■■■■ O ■■■■   "
280 NZ$(9)="■■    ■■■■ R ■■■■   "
290 NZ$(10)="■■    ■■■■ E ■■■■   "
300 NZ$(11)="■■    ■■■■ . ■■■■   "
310 NZ$(12)="■■    ■■■■ U ■■■■   "
320 NZ$(13)="■■    ■■■■ S ■■■■   "
330 NZ$(14)="■■    ■■■■ E ■■■■   "
340 NZ$(15)="■■    ■■■■ R ■■■■   "
350 FORI=0TO3:FORJ=0TO3:N(I,J)=I*4+J:NEXTJ,I
360 PRINT"■■■■■■■■■■■■■■■■MIND-BOGGLER!":GOSUB550
365 PRINT"■■■■        C= COMMODORE.USER"
370 X1=0:Y1=0:X=0:Y=0:Z=20+INT(RND(0)*25)
380 FORJ=1TOZ:X=INT(RND(0)*4):GOSUB620:Y=INT(RND(0)*4):GOSUB620:NEXT
390 COLOR1,3,3:PRINTCD$;CR$;"■■";C2$;C3$;CS$;"■":X=0:Y=0
400 GETA$:IFA$<>" "ANDA$<>"P"ANDA$<>"I"ANDA$<>"Q"ANDA$<>"Z"THEN400
410 IFA$=" "AND(X1=XORY1=Y)THENGOSUB620:GOTO400
```




```
420 PRINTCD$;CR$;"■■";C2$;C3$;CX$
430 IFA$<>" "THENSOUND1,400,7
440 IFA$="P"THENX=X+1:C2$=C2$+"■■■■":IFX>3THENX=0:C2$=""
450 IFA$<>"I"THEN480
460 X=X-1:IFX>=0THENC2$=LEFT$(C2$,X*4):GOTO520
470 X=3:C2$="■■■■■■■■■■■■■":GOTO520
480 IFA$<>"Q"THEN510
490 Y=Y-1:IFY>=0THENC3$=LEFT$(C3$,Y*4):GOTO520
500 Y=3:C3$="■■■■■■■■■■■■■"
510 IFA$="Z"THENY=Y+1:C3$=C3$+"■■■■":IFY>3THENY=0:C3$=""
520 COLOR1,3,3:PRINTCD$;CR$;"■■";C2$;C3$;CS$
530 GOTO400
540 END
550 COLOR1,1:PRINTCD$;CR$;" ╱";TP$;"╲■■";S$;
560 PRINTCD$;CR$;"■";S$;" ╲";TP$;"╱";
570 PRINTCD$;"■■■■";
580 FORI=0TO3:PRINTCR$;"■■";:FORJ=0TO3
590 PRINT"■■";NZ$(I*4+J);"■ ";:N(I,J)=I*4+J
600 NEXTJ:PRINT:PRINT:PRINT:PRINT:NEXTI
610 RETURN
620 IFX1=XANDY1=YTHENRETURN
630 IFY<Y1THENFORI=Y1-1TOYSTEP-1:N(I+1,X)=N(I,X):GOSUB680:Y1=Y:NEXT
640 IFY>Y1THENFORI=Y1+1TOY:N(I-1,X)=N(I,X):GOSUB690:NEXT:Y1=Y:RETURN
650 IFX<X1THENFORI=X1-1TOXSTEP-1:N(Y,I+1)=N(Y,I):GOSUB710:NEXT:X1=X:RETURN
660 IFX>X1THENFORI=X1+1TOX:N(Y,I-1)=N(Y,I):GOSUB720:NEXT:X1=X:RETURN
670 PRINTBD$;BR$;NZ$(0):COLOR1,1:RETURN
680 Z$=BD$:BD$=LEFT$(BD$,I*4+7):GOTO700
690 Z$=BD$:BD$=BD$+"■■■■"
700 SOUND1,1000-5*I,2:GOSUB670:PRINTZ$;BR$;NZ$(N(I,X)):RETURN
710 Z$=BR$:BR$=LEFT$(BR$,I*4+12):GOTO730
720 Z$=BR$:BR$=BR$+"■■■■"
730 SOUND1,970+5*I,2:GOSUB670:PRINTBD$;Z$;NZ$(N(Y,I)):RETURN
```

RITEMAN:C+

THE ULTIMATE ENHANCEMENT TO YOUR COMMODORE®

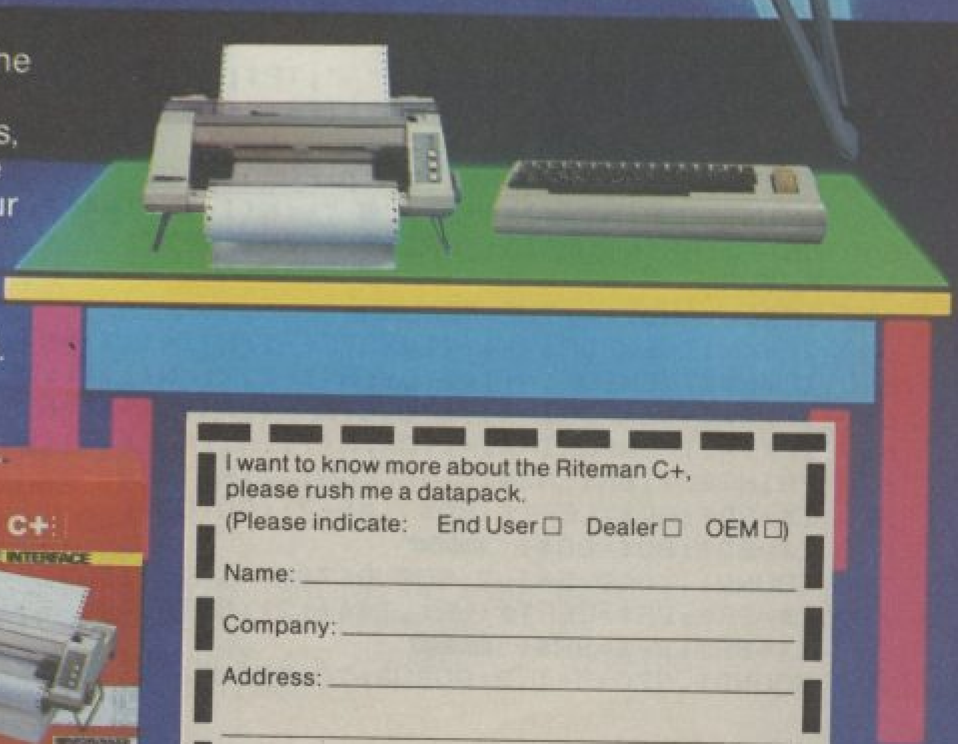
- 105 cps uni/bidirectional logic seeking
- Supports Commodore 82-character graphics set, plus 96-character ASCII with true descenders
- Ten print modes, including standard, bold, expanded, condensed, emphasised, italics and super/subscript
- Commodore 64 and VIC serial interfaces
- Four international character sets – USA, UK, France and Germany plus Spanish and Scandinavian options
- 4″ to 10″ wide paper, traction or friction drive
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- One million character ribbon life
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(Please indicate: End User☐ Dealer☐ OEM☐)

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Company: ______________________

Address: ______________________

____

____

INVERTED VIDEO ON THE COMMODORE 64



Ever tried making a coloured object move across a multi-coloured background, using Basic? It's pretty tricky. So Jim's come to the rescue with a technique called Inverted Video. There's also a type-in game to show you how it works.

by Jim Butterfield

Those of us who've played around with video effects on the Commodore 64 know that "plain" video involves one background colour and a choice of printing colours. In other words, we can choose to print green, red, and yellow on a white background; but we can't go the other way and print, say, white on a multicoloured background. But we can get this effect easily by using a trick.

Here's the objective: we want to make an object move over a textured background. Maybe it's a small black bug flying over a terrain which is green (grass), blue (water) and white (ice). We don't want the bug to change colour as it passes these areas; it must stay black.

Yet the 64 seems to be set up to work the other way: the foreground colour may change from one character cell to another, but the background must be one solid colour across the whole screen.

There are many special features that we could call into play to get around this "solid background" problem, of course. Extended colour mode (we used it last month) allows us a choice of backgrounds: it's attractive for many uses and too little used by most programmers. Sprites may be placed anywhere on the screen, over existing patterns, giving the "colour over colour" effect. We could even go into a split screen technique to do multiple backgrounds; it would be complex, but might do the job.

But we *can* achieve the effect without calling in special features. To invert the screen workings, we must invert our thinking — no, don't stand on your head.

Upside-down

When I was a small child, I used to think that stars were tiny holes in the black curtain that covered the sky at night; in other words, they were chinks of light shining through. I couldn't tell the difference between a white source set against a black background, and a white background shining through a black covering foreground.

That's the technique we'll use here. Since we have one background colour and a choice of many foreground colours, let's flip them over so that we have one "foreground colour" against a mixture of many "background" colours. We'll have to work in reversed characters, of course, to switch background and foreground, but that's no problem.

Let's try a simple example. We want a white letter A to move over a multi-coloured background. Here goes:

100 PRINT CHR$(144); CHR$(147)
110 POKE 53281,1

This clears the screen (147) and sets the colours: background to white (53281) and cursor to black (144).

120 FOR J = 0 TO 39
130 POKE 1024 + J,160
140 POKE 55296 + J,RND(1)*14 + 2
150 NEXT J

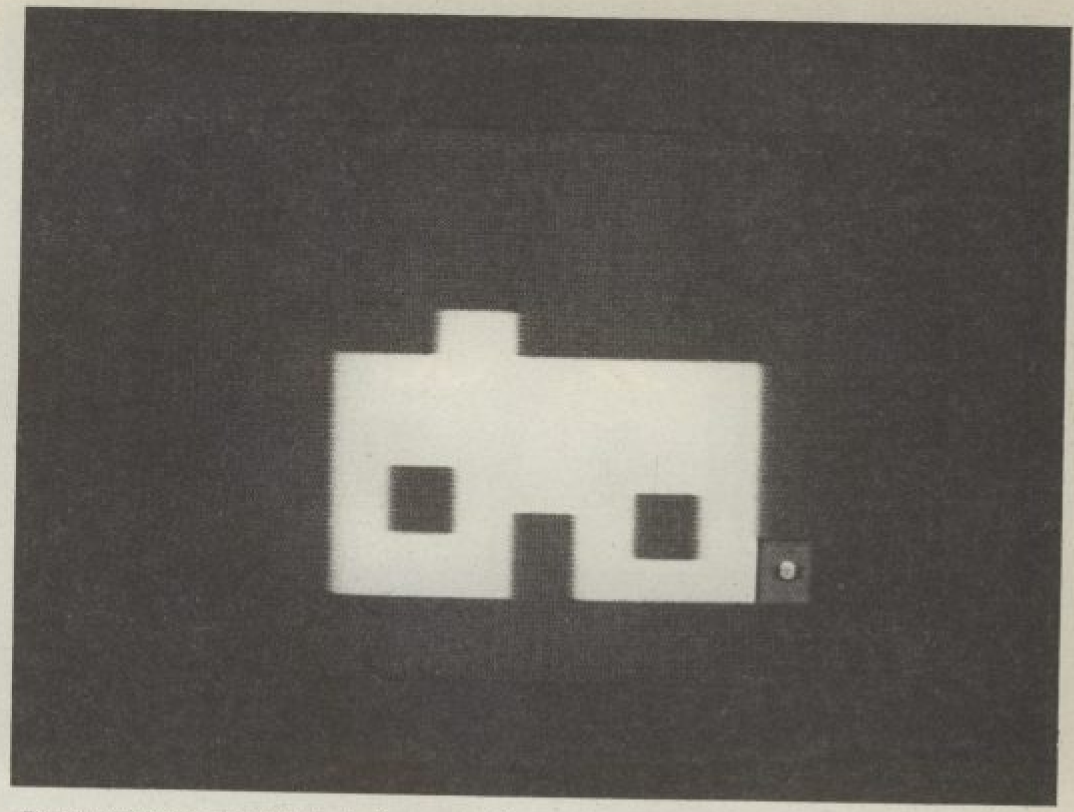
We poke reverse spaces (160) to the top line of the screen, and put random colours into the colour nybble table at 55296. Note that we need reverse spaces; ordinary spaces would just show the background colours. These colours will *seem* to be background, because they won't change:

160 FOR J = 0 TO 38
170 POKE 1024 + J,160
180 POKE 1025 + J,129
190 FOR K = 1 TO 100
200 NEXT K,J

These are the final lines of the program. They make a white letter A move across the top line of the screen, left to right. The screen code for A is a value of 1, but we add 128 to get a value of 129: that's a reversed-A. As we move the A to its new position, we make it disappear from its old spot by poking the reversed-space there (value 160).

Now — we know that we're moving a reverse-A along the top line of the screen. And we know that each character is a different, random, colour as we print it. But when we type RUN and watch the program working, we see a white A moving across the top. Why?

Because we're really seeing the white background colour "peeking through" the reversed foreground. The optical illusion is complete: we see a single foreground colour moving across a multi-colour background.



Paint the house completely before returning to the garage.

Paint your house

We'll use this principle to write a short program called **Housepainter**. It's part game, part puzzle, part coordination exercise, and it's good fun. Go ahead and type it in.

Here's your chance to do some handywork. You have five minutes to paint the house using the function keys to move the brush. F1 moves up, F7 down, F3 left and F5 right. You are not allowed to paint over any area, so be careful and plan your work. By the way: it is possible, although you may have a lot of trouble at first.

The program is entirely in Basic, which means that there's a pause as it sets up the screen. You may read the program and study how it draws the house by means of a series of rectangles defined in DATA statements.

Note that the characters showing the time in the upper left hand part of the screen seem normal, but are really in reverse font; the white is the background colour peeking through. Similarly, the white paint itself — and the circular brush — are really background.

That's how the white brush can move inside a red shed and across a yellow house: it's not magic, it's inverted video.

Housepainter Program

```
100 PRINT "[CLS][CD]HOUSEPAINTER[2SPC]-[2SPC]JIM BUTTERFIELD"
110 PRINT "[3SPC]TRY TO PAINT THE HOUSE USING THE
120 PRINT "FUNCTION KEYS TO MOVE THE BRUSH.
130 PRINT "[3SPC]YOU'RE NOT ALLOWED TO PAINT OVER
140 PRINT "AN AREA ... SO DON'T PAINT YOURSELF
150 PRINT "INTO A CORNER.
160 PRINT "[3SPC]YOU HAVE FIVE MINUTES.[2SPC][G>L]EAVE THE
170 PRINT "PAINT BRUSH IN THE RED SHED WHEN
180 PRINT "YOU'RE FINISHED.[2SPC]PRESS ANY KEY TO GO.
190 FOR J=1 TO 1E4:GET X$:IF X$="" THEN NEXT J
200 DATA 3,0,24,0,39
210 DATA 7,10,20,10,30
220 DATA 7,8,9,15,18
230 DATA 3,15,17,13,15
240 DATA 3,16,18,25,27
250 DATA 3,17,20,19,21
260 DATA 2,18,20,31,33
270 DATA -1
300 PRINT CHR$(159);CHR$(147);"WAIT";CHR$(142);CHR$(8):POKE 53281,1
310 C0=55296:S0=1024
320 REM
330 READ C:IF C<0 GOTO 400
340 READ V1,V2,H1,H2
350 FOR J=V1*40 TO V2*40 STEP 40
360 FOR X=C0+J+H1 TO C0+J+H2
370 POKE X,C
380 NEXT X,J
390 GOTO 330
400 FOR J=S0+4 TO S0+999:POKE J,160:NEXT J
410 FOR J=C0 TO C0+999
420 IF (PEEK(J)AND15)=7 THEN N=N+1
430 NEXT J
440 TI$="000000"
450 V=19:H=32
460 POKE V0*40+H0+S0,160
470 POKE V*40+H+S0,209
480 V0=V:H0=H
490 PRINT CHR$(19);CHR$(18);TI$
500 IF TI$>"000300" GOTO 680
510 K=PEEK(203)
520 GET K$:K1=ASC(K$+CHR$(0))
530 IF K1=133 THEN V1=-1
540 IF K1=134 THEN H1=-1
550 IF K1=135 THEN H1=1
560 IF K1=136 THEN V1=1
570 IF K<64 GOTO 590
580 V1=0:H1=0
590 V=V0+V1:H=H0+H1
600 P=C0+V*40+H:IF P=P9 GOTO 490
610 C=PEEK(P)AND15
620 IF C<>7 AND C<>2 GOTO 490
630 IF C9=7 THEN POKE P9,1:N=N-1
640 P9=P:C9=C
650 IF C<>2 OR N>0 GOTO 460
660 PRINT " WINNER! "
670 END
680 PRINT " YOU MISSED";STR$(N);" SQUARES"
```

Six of the best?

Latest utilities for the 64 and 16

by Ken McMahon

There's no stopping them, software houses are determined to make you do more with your Commodore micro. The 16 has just spawned its first word-processor and a music program. For the 64, there's Activity Centre, a package for star gazers, a typing tutor and yet another extended Basic. What more do you want?

Music Master for the 16

Music Master, from Supersoft, enables you not only to play tunes on the C16's keyboard, but record and edit them.

The lower portion of the main screen displays a replica of a piano keyboard labelled with the corresponding key on the C16. When a key is pressed the note sounds and a blob appears on the relevant key. The frequency of the note (in Hertz) is also displayed alongside the relevant voice indicator.

As well as changing the octave it is also possible to vary the envelope of the tone using attack, decay and sustain parameters. This affects the final form of the tone and makes it possible to produce for example a violin or flute type sound.

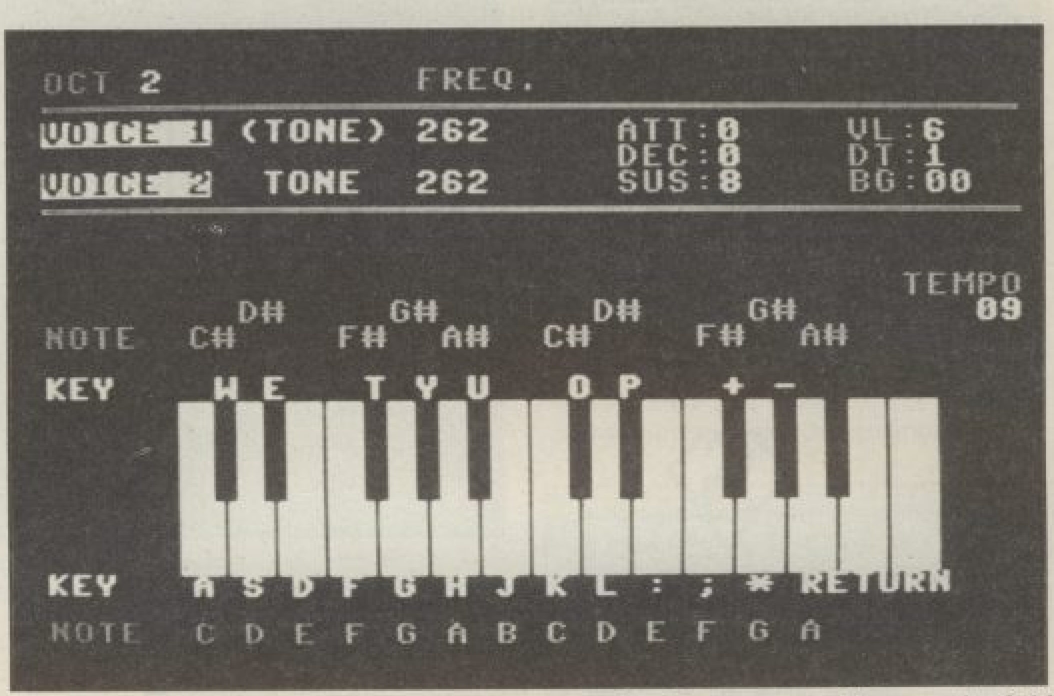
Unlike the Commodore 64, the 16's sound chip doesn't have an envelope generator, it's implemented by Music Master's software. This means it's not as versatile as it might be. But to be honest I was surprised to find it at all.

Recording and editing is done on the aptly titled music screen. Here again we have the keyboard replica, but on the top half of the screen is a sort of scrolling stave on which the notes are recorded as you play them. There are two channels which can be recorded separately, then played back simultaneously.

There are a number of editing functions which enable you to alter the final product in much the same way you would alter text with a word processor. Blocks of notes can be replicated, making it easier to record music with repeats, or set up drum sequences.

The transpose command raises or lowers all the notes in a particular block a semi-tone at a time. You can produce some interesting effects using the bounce command. This copies a piece of music from one channel to another. Having done this you can make alterations to the second channel, then play the two back in unison.

In case you need some help to get the creative juices flowing there are ten built-in backing rhythms, one of which can be user defined. You could use these for example to provide a drum backing. The only problem I found was that this tended to corrupt my accompaniment, causing it to beat in time with the backing. There didn't seem to be any easy way around this problem.



the on-screen keyboard on Music Master corresponds with two rows of keys on the C-16

Once you've created your masterpiece you can save it to disc or tape and even use it in your own programs. To help you on your way the manual includes two programs to read and play Music Master files.

Given the paucity of the C16's sound capabilities, compared with the 64, it's a tribute to programmer Nick Higham that he's managed to produce such an excellent synth program.

- Music Master (C16)
- Supersoft
  Winchester House
  Canning Road
  Wealdstone, Middx
  01-861 1166
- Price: £12.95 (tape)
  £14.95 (disk)

Extended Basics

I'll be honest about extended Basics, I've never actually used one; Simon is a total stranger to me. Having messed around with **MCT Basic**, from Micro Component Trading, for the last couple of hours I find it hard not to be enthusiastic.

What MCT Basic does is to upgrade the 64's paltry Basic V2.1 to the superior V3.5, implemented on the C16 and Plus4. This gives you the best of both worlds — a superior machine with superior Basic.

It's just not possible to include all the extra functions and commands that MCT Basic provides, so I'll concentrate on a few of the more useful ones.

The most infuriating thing about the 64's Basic is that it provides no easy method of creating graphic displays or manipulating sprites. MCT provides you with four graphic modes ranging from the usual text mode through to multicolour hi-res including a mixture of both on one screen. When in hi-res mode you can take advantage of the graphic commands *draw, box, circle,* and *paint* which need no explanation.

Game fiends can take advantage of the sprite commands to define, enable, and move sprites. Similarly, the 64's renowned sound can be accessed from Basic using the Sound command. As on the 16, this has three parameters: channel, pitch, and duration. The ADSR envelope can also be defined.

MCT Basic also includes a number of programming aid commands. Among the most useful are automatic line numbering and renumbering, and Tron, which displays line numbers as they are executed, enabling you to trace the program flow. Existing Basic commands like Print, If

Then, Restore, and the string functions are extended, making them a good deal more powerful.

I could go on for ever: joystick commands, disc commands, a machine code monitor. MCT Basic also comes with a free program, *Screen Painter*. Written in MCT Basic, it's a screen drawing and painting utility.

Not having used other extended Basics I couldn't honestly say MCT's is the best, but it's hard to see how it could be improved upon. If nothing else it provides compatibility with C16 and Plus4 software, so you could for example type in C16 listings from the program section in *Commodore User*. It's unlikely however that C16 commercial software would run as it's likely to contain machine code.

At £10.95 this is one of the cheapest extended Basics worth the name and excellent value for money.

- MCT Basic (C64)
- Micro Component Trading
  Group House
  Fishers Lane
  Norwich, Norfolk
  0603 633005
- Price: £10.95 (tape)

More words for the 16

Supersoft has just released the first word processing software yet seen on the C16. **Word Perfect** is a simple word processor, yet it incorporates some of the sophisticated techniques of more expensive packages.

Text is formatted on the screen as you type — the WYSIWYG method as it is known, meaning literally that what you see is what you get, text is printed out exactly as it appears on the screen.

The width of your page is thankfully not limited to the C16's forty columns, but can be set to a maximum of 160 characters and text scrolls to the left as you type. Similarly page length can be defined to a maximum of 248 lines.

Due to the limitations of the C16's memory you can't actually have a page of maximum dimensions. About 8K is left for text storage which will hold about a thousand words or two A4 sized pages. Word Perfect is therefore probably more suited to the avid letter writer than the aspiring novelist. But it should be possible to produce lengthy documents by saving them in small chunks to disc then loading and printing them sequentially.

Text editing is carried out in 'control mode' by pressing the shift and control keys. Once in control mode it's possible to insert, delete, move, copy, erase, and reformat text. A search facility is also available, which pinpoints a particular string of characters within the body of the text. Other standard functions such as tabulation and centering are also included.

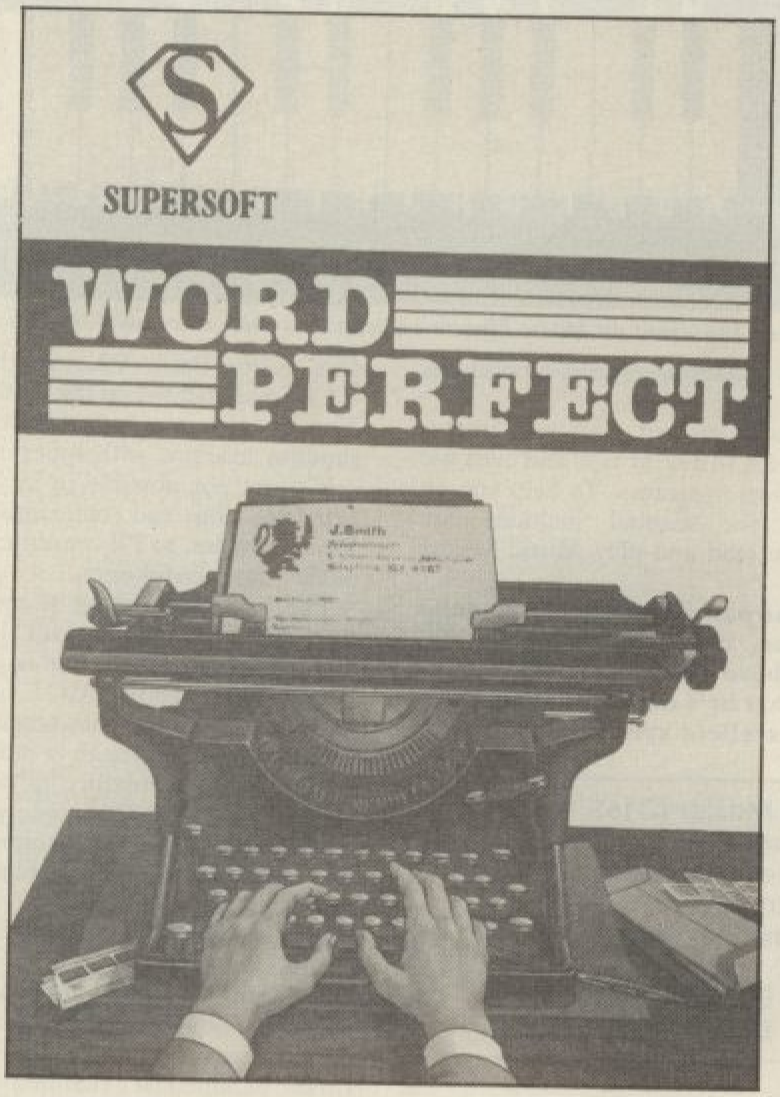
There are a few things missing like Search and Replace and margin justification. But in a package of this price and scope you wouldn't really expect to find them.

One criticism I would make is that Word Perfect isn't the most user friendly WP I've ever seen. The single key commands aren't always the most obvious ones, i.e. DEL reformats a paragraph.

Some of the functions are tedious to use; text has to be copied a line at a time each one involving about four separate key depressions. In many cases it might be quicker to type it out again.

Those objections aside, Word Perfect is a neat little program. At the bargain price of £13.95 you'd expect it to be a little rough around the edges.

- Word Perfect (C16)
- Supersoft
  Winchester House
  Canning Road
  Wealdstone, Middx
  01-861 1166
- Price: £12.95 (tape)
  £14.95 (disk)



Type it right

Precision Software claim that their **Super Type** keyboard trainer, for the 64, will have you touch-typing inside ten hours. That strikes me as being a touch optimistic, but there's no doubt that the Commodore 64 is ideally suited to this sort of application.

Apart from the software, Super Type consists of a ring binder manual which you can stand upright on your desk and a set of various coloured stickers. These serve two purposes, by sticking them over your 64's keys you can't cheat by peeking. Secondly each key is colour coded, making the learning process easier and speedier.

The manual consists of exercises designed to build up your skill at using particular keys. Each one is accompanied by the relevant software section which is chosen from a menu.

The first menu option is letters *asl*: and having selected this you type in the exercise from the manual. To begin with this is fairly simple key repetition — *aaa sss ::: lll*. On completion of each line, errors are indicated by arrows and the total number is output. Once satisfied with your performance you can move onto words and finally sentences using the same letters.

When the whole exercise is completed you get a progress report that shows how long you took to type the sentences, how many errors you made, your speed in words per minute, and the computer's assessment of your performance which tells the keys you need to practice and which fingers you made the most mistakes with.

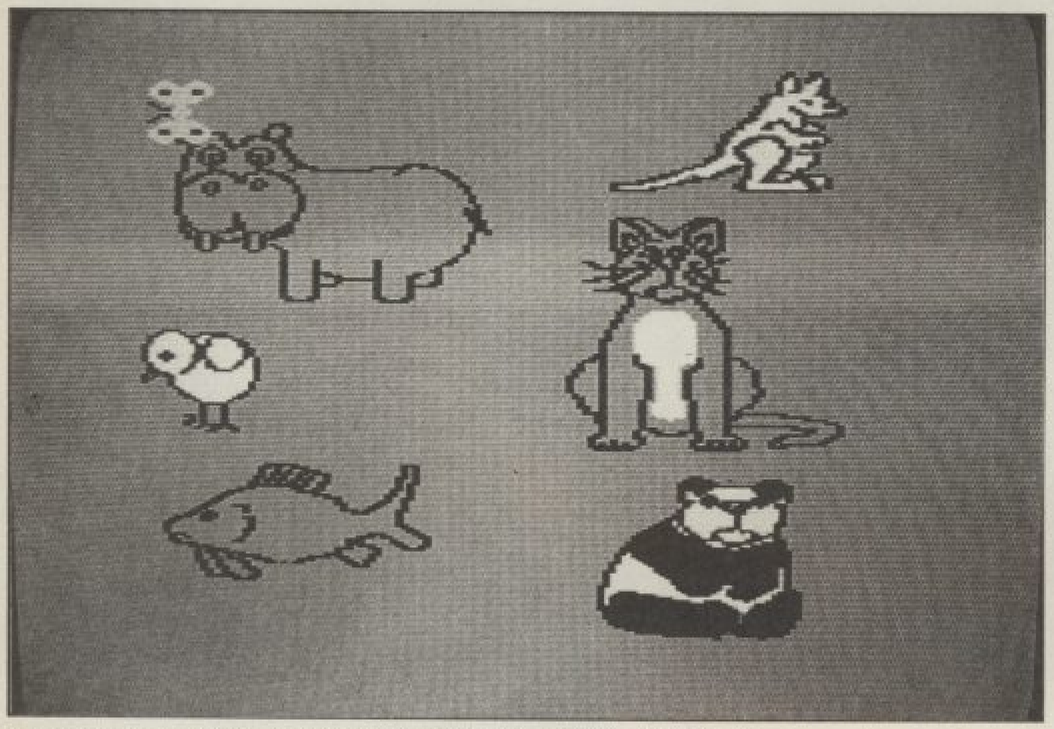
Review exercises are included at key points to test everything learned in preceding sections. Finally, there are four consolidation exercises to give you practice on longer pieces of text.

Super Type is a simple idea and one well suited to computer learning. It won't teach you everything, there's nothing for example on text layout or tabulation, but you can get that kind of thing from other sources.

Probably its biggest plus is that it makes typing fun to learn. There's no greater incentive than watching your proficiency improve over a short space of time. Whilst I would dispute

Precision's ten hour claim, I think a reasonable standard of touch typing could be achieved in a short while.

- Super Type (C64)
- Precision Software
  6 Park Terrace
  Worcester Park
  Surrey
  01-330 7166
- Price: £19.95 (tape)



Above: example of the drawing utility on the Activity Centre package
Right: The Star seeker package — for Sky at Night buffs

Keep your 64 active

The idea behind **Activity Centre**, from Argus Press Software, is to enable you to design pages containing text, artwork, and animated characters, accompanied by music: "Write, draw, animate, compose", as it says in the blurb.

On loading you're presented with the main menu; from this it is possible to select any of the draw, animate or music options as well as redefine the 'ink' colours. Once a selection is made, the relevant software is loaded from disk and is again operated via its own sub-menu.

Taking the 'activities' in chronological order, draw enables you to create freehand designs on the 64's hi-res screen in three colours. The usual functions such as *circle, box, line* and *copy* are available. *Fill*, however, will only paint rectangular areas, not circles or irregular shapes.

Moving to animation, this section allows you to define two sprites (yes, only two!) and animate them either separately or as one moving figure. That's really about all the description it warrants.

As everyone knows the 64 has excellent sprite facilities, but these are not exploited to the full here. In fact, what's included is so paltry it doesn't even merit the description animation.

Sadly, the same goes for music. Although you get a choice of several instruments only one of the 64's three voices is utilised. The method of input is also tedious. Each note must be defined in terms of length and pitch. There is no facility for editing so if you input one duff note you presumably have to start again from scratch.

Having designed each part of your page you can save it, then put them all together to create the whole design which can be output to a printer (not Epson!). Inevitably the mediocre parts fail to create an interesting whole.

Activity Centre covers a lot of ground, none of it well. Better to invest in something less ambitious that does the job properly.

- Activity Centre (C64)
- Argus Press Software
  Liberty House
  222 Regent Street
  London W1R 7DB
  01-734 6470
- Price: £14.95 (disk only)

Heavens above

Mirrorsoft's **Star Seeker**, for the 64, is a sort of astronomical database with charts. Basically, it will plot a map of the night sky from any position on the earth on any particular date.

Initially the program asks you to input the location on earth from which you want to stargaze. A table of longitudes and latitudes of major cities is thoughtfully provided in the instructions.

Next you're asked to input the date and time, only dates from 1900 to 2100 are acceptable, but two centuries seems to me to be a fair span.

You are then given the option to view the heavens in any of the four compass directions or directly overhead. Alternatively, if you're interested in a particular section of the sky, you can input your own bearing in degrees.

Star Seeker will then plot the stars that are visible at the time and place you specified. There are a number of options to elicit further information. A list of the major constellations can be obtained, or the program can draw a constellation map — connecting the individual stars as they move across the sky.

Positioning a cursor over a star and pressing the space bar gives you detailed information on it such as its position, magnitude, distance from earth, etc. If you tire of looking at one particular view, the date, time and direction parameters can be altered from within the program.

Finally, if you want to nip outside and take a look at the real thing, you can produce a printout providing you have a Commodore printer. It's a shame this can't be done on an Epson as it's one of the most useful functions.

An additional program, *Solar System*, is included which provides information on the planets and Halley's Comet in much the same way as Star Seeker. Regrettably, my copy had a bug which caused it to hang up whenever I looked at the moon, but I was assured by a Mirrorsoft spokeswoman that the problem has now been rectified. Apart from one or two gaffs the manual is well written and contains lots of interesting supplementary information.



If I were to fault Star Seeker it would be for the time it takes to plot the maps, it takes eons! Whilst I can't see it having a wide appeal, Star Seeker would undoubtedly be a useful accessory for the budding astronomer.

- Star Seeker (C64)
- Mirrorsoft
  Mirror Group Newspapers
  Holborn Circus
  London EC1
  01-822 3947
- Price: £9.95 (tape)
  £10.95 (disk)



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AVON

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Bristol. Avon Computer Rentals, 16 West Street, Old Market. Tel: 0272 550600.
Bristol. Boots, 59 Broadmead. Tel: 0272 293631.
Bristol. Laskys, 16-20 Penn Street. Tel: 0272 20421.
Clevedon. Computer Centre, 12A Old Street, Clevedon. Tel. 0272 879514.

BEDFORDSHIRE

Bedford. Boots, The Harpur Centre, Harpur Street. Tel: 0234 56231.
Luton Datasine, Delaport House, 57 Guildford Street. Tel: 0582 455860.

BERKSHIRE

Slough. MV Games, 245 High Street. Tel: 75 21594.

BUCKINGHAMSHIRE

Bletchley. RAMS Computer Centre, 117 Queensway. Tel: 0908 647744.
Chesham. Reed Photo & Computers, 113 High Street. Tel: 0494 783373.

CAMBRIDGESHIRE

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Cambridge. Cambridge Computer Store, 4 Emmanuel Street. Tel: 0223 358264
Peterborough. Logic Sales, Unit 6, Midgate Parade, Peterborough. Tel: 0733 49696.
Peterborough. Boots, 40-42 Bridge Street, Queensgate. Tel: 0733 65352.

CHESHIRE

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Chester. Computer Link, 21 St. Werburgh Street. Tel: 0244 316516.
Crewe. Midshires Computer Centre, 68-78 Nantwich Road. Tel: 0270 211086
Hyde. C Tech Computers, 184 Market Street. Tel: 061-366 8223.
Macclesfield. Camera Computer Centre, 118 Mill Street. Tel: 0625 27468
Macclesfield. Computer Centre, 68 Chestergate. Tel: 0625 618827.
Marple. Marple Computer Centre, 106 Church Lane. Tel: 061-447 9933
Wilmslow. Wilmslow Micro Centre, 62 Grove Street. Tel: 0625 530890.

CLEVELAND

Darlington. Darlington Computer Shop, 75 Bondgate. Tel: 0325 487478.
Middlesbrough. Boots, 88-90 Linthorpe Road, The Cleveland Centre. Tel: 0642 249616.

CUMBRIA

Kendal. The Kendal Computer Centre, Stramongate. Tel: 0539 22559.
Penrith. Penrith Communications, 14 Castlegate. Tel: 0768 67146.
Whitehaven. P D Hendren, 15 King Street. Tel: 0946 2063.
Workington. Technology Store, 12 Finkle Street. Tel: 0900 66972.

DERBYSHIRE

Alfreton. Gordon Harwood, 67-71 High Street. Tel: 0733 832078.
Chesterfield. Boots, 35-37 Low Pavement, Market Place. Tel: 0246 203591.
Chesterfield. Computer Stores, 14 Stephenson Place. Tel: 0246 208802.
Derby. Boots, 1 Devonshire Walk. Tel: 0332 45886.

DEVON

Exeter. Boots, 251 High Street, Tel: 0392 32244.
Exeter. Open Channel, Central Station, Queen Street. Tel: 0392 218187.
Paignton. Computer Systems Ltd, 35 Hyde Road. Tel: 0803 524284.
Plymouth. Syntax, 76 Cornwall Street. Tel: 0752 28705.
Seaton. Curtis Computer Services, Seaton Computer Shop, 51c Harbour Road. Tel: 0297 22347.
Tiverton. Actron Microcomputers, 37 Bampton Street. Tel: 0884 252854.

DORSET

Bournemouth. Lansdowne Computer Centre, 1 Lansdowne Crescent, Lansdowne. Tel: 0202 290165.
Dorchester. The Paper Shop, Kings Road. Tel: 0305 64564.
Poole. Lansdowne Computer Centre, 14 Arndale Centre. Tel: 0202 670901.

ESSEX

Basildon. Basildon Software Centre, 78-80 Liberty Shopping Hall, East Square. Tel: 0268 27922.
Braintree. Mirage Microcomputers Ltd, 24 Bank Street. Tel: 0376 48321.
Chelmsford. Maxton Hayman, 5 Bromfield Road. Tel: 0245 354595.
Chelmsford. Way In Computers, 7 Village Square, Tel: 0245 467858.
Colchester. Boots, 5-6 Lion Walk. Tel: 0206 577303.
Colchester. Colchester Computer Centre, 3a Short Wyre Street. Tel: 0206 47242.
Grays. H. Reynolds, 28a Southend Road. Tel: 0375 31641.
Harlow. Harlow Computer Centre, 17 Staple Tye. Tel: 0279 22846.
Hornchurch. Comptel Computer Systems, 112a North Street. Tel: 0402 446741.
Ilford. Boots, 177-185 High Road. Tel: 01-553 2116.
Romford. Software Plus, 72 North Street. Tel: 70 65271.
Southend-on-Sea. Computerama, 88 London Road. Tel: 0702 335443.
Southend-on-Sea. Computer Centre, 336 London Road. Tel: 0702 337161.
Southend-on-Sea. Estuary Personal Computers, 318 Chartwell North, Victoria Circus Shopping Centre. Tel: 0702 614131.

GLOUCESTER

Cheltenham. Laskys, 206 High Street. Tel: 0242 570282.
Cheltenham. Screen Scene, 144 St. Georges Road. Tel: 0242 528979.
Gloucester. Boots, 38-46 Eastgate Street. Tel: 0452 423501.

HAMPSHIRE

Basingstoke. Fishers, 2-3 Market Place. Tel: 0256 22079.
Petersfield. Foly Micros, 45 Chapel Street. Tel: 0730 66841.
Portsmouth. Micro Choice, 159 Havant Road, Drayton. Tel: 0705 327591.
Portsmouth. RDS Electrical, 157-161 Kingston Road, Tel: 0705 812478.
Southampton. Business Electronics, Micromagic At Atkins, 7 Civic Centre Road. Tel: 0703 25903.
Waterlooville. GB Microland, 7 Queens Parade, London Road. Tel: 0705 259911.

HERTFORD

Potters Bar. the Computer Shop, 107 High Street. Tel: 0707 44417.
Stevenage. DJ Computers, 11 Town Square. Tel: 0438 65501.
Watford. SRS Microsystems, 94 The Parade, High Street. Tel: 0923 26602.
Welwyn Garden City. DJ Computers, 40 Fretherne Road. Tel: 0707 32844.

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Ashford. Geerings of Ashford, 80 High Street. Tel: 0233 33366.
Bromley. Boots, 148-154 High Street. Tel: 01-460 6688.
Bromley. Computers Today. 31 Market Square.
Chatham. Boots, 30-34 Wilmott Square, Pentagon Centre. Tel: 0634 405471.
Gravesend. Gravesend Home Computers, 39 The Terrace. Tel: 0474 23871.
Gillingham. Regal Software Supplies, 49 High Street. Tel: 0634 579634.
Maidstone. Boots, 56-62 King Street. Tel: 0622 53912.
Maidstone. Kent Micros, 51 Union Street. Tel: 0622 52784.
Rainham. Microway Computers, 39 High Street. Tel: 0634 376702.
Sevenoaks. Ernest Fielder Computers, Dorset Street. Tel: 0732 456800.
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Sittingbourne. Computer Plus, 65 High Street. Tel: 0795 25677.
Tunbridge Wells. Modata Computer Centre, 28-30 St. Johns Road. Tel: 0892 41555.

LANCASHIRE

Blackpool. Blackpool Computers Store, 179 Church Street. Tel: 0253 20239.
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Preston. 4Mat Computing, 67 Friargate. tel: 0772 561952.
Preston. Laskys, 1-4 Guildhall Arcade. Tel: 0772 59264.
Wigan. Wildings Computer Centre, 11 Mesnes Street. Tel: 0942 22382.

LEICESTERSHIRE

Leicester. Boots, 30-36 Gallowtree Gate. Tel: 0533 21641.
Market Harborough. Harborough Home Computers, 7 Church Street. Tel: 0858 63056.

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W1. Computers of Wigmore Street, 104 Wigmore Street. Tel: 01 486 0373.
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W1. Lion House, 227 Tottenham Court Road. Tel: 01-637 1601.
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W1. Walters Computers, DH Evans, Oxford Street. Tel: 01-629 8800.
WC1. Transam Micro Systems, 59-61 Theobalds Road. Tel: 01-405 5240.
W5. Laskys, 18-19 Ealing Broadway Shopping Centre. Tel: 01-567 4717.
W8. Walters Computers, Barkers, Kensington High Street. Tel: 01-937 5432.
SE7. Vic Oddens Micros, 5 London Bridge Walk. Tel: 01-403 1988.
SE9. Square Deal, 373-375 Footscray Road, New Eltham. Tel: 01-859 1516.
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EC2. Devron Computer Centre, 155 Moorgate. tel: 01-638 3339.
N14. Logic Sales, 19 The Bourne, The Broadway, Southgate. Tel: 01-882 4942.
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NW3. Maycraft Micros, 58 Rosslyn Hill, Hampstead. Tel: 01-431 1300.
NW4. Davinci Computer Store, 112 Brent Street, Hendon. Tel: 01-202 2272.
NW7. Computers Inc, 86 Golders Green. Tel: 01- 209 0401.
NW10. Technomatic, 17 Burnley Road, Wembley. Tel: 01-208 1177.

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Bolton. Computer World UK Ltd, 208 Chorley Old Road. Tel: 0204 494304.
Manchester. Boots, 32 Market Street. Tel: 061-832 6533.
Manchester. Laskys, 12-14 St. Marys Gate. Tel: 061-833 0268.
Manchester. Mighty Micro, Sherwood Centre, 268 Wilmslow Road, Fallowfield. Tel: 061-224 8117.
Manchester. NSC Computer Shops, 29 Hanging Ditch. Tel: 061-832 2269.
Manchester. Walters Computers, Kendal Milne, Deansgate. Tel: 061-832 3414.
Oldham. Home & Business Computers, 54 Yorkshire Street. Tel: 061-633 1608.
Swinton. Mr Micro, 69 Partington Lane. Tel: 061-728 2282.

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St. Helens. Microman Computers, Rainford Industrial Estate, Mill Lane Rainford. Tel: 0744 885242.
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Thetford. Thetford CB & Micros, 21 Guildhall Street. Tel: 0842 61645.

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Oxford. Science Studio, 7 Little Clarendon Street. Tel: 0865 54022.

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Edinburgh. Boots, 101-103 Princes Street. Tel: 031-225 8331.
Glasgow. Boots, 200 Sauchiehall Street. Tel; 041-332 1925.
Glasgow. Boots, Union Street and Argyle Street. Tel; 041-248 7387.
Glasgow. Tom Dixon Cameras, 15-17 Queen Street. Tel: 041-204 0826.

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Shrewsbury. Computerama, 13 Castlegate. Tel: 0743 60528.
Telford. Computer Village Ltd, 2/3 Hazeldine House, Central Square. Tel: 0952 506771.
Telford. Telford Electronics, 38 Mall 4. Tel: 0952 504911.

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Bury St. Edmunds. Boots, 11-13 Cornhill. Tel: 0284 701516.
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Croydon. The Vision Store, 53-59 High Street. Tel: 01-686 6362.
Croydon. The Vision Store, 96-98 North End. Tel: 01-681 7539.
South Croydon. Concise Computer Consultants, 1 Carlton Road. Tel: 01-681 6842.
Epsom. The Micro Workshop, 12 Station Approach. Tel: 0372 721533.
Guildford. Walters Computers, Army & Navy, 105-111 High Street. Tel: 0483 68171.
Wallington. Surrey Micro Systems, 53 Woodcote Road. Tel: 01-647 5636.
Woking. Harpers, 71-73 Commercial Way. Tel: 0486 225657.

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Newcastle-upon-Tyne. RE Computing, 12 Jesmond Road. Tel: 0632 815580.

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Aberystwyth. Aberdata at Galloways, 23 Pier Street. Tel: 0970 615522.
Cardiff. Boots, 26 Queens Street & 105 Frederick Street. Tel: 0222 31291.
Cardiff. Randall Cox, 18/22 High Street Arcade. Tel: 0222 397162.
Mold. Clwyd Personal Computers, Unit 19, Daniel Owen Precinct. Tel: 0352 56842.
Newport. Gwent Computers, 92 Chepstow Road. Tel: 0633 841760.
Swansea. Boots, 17 St. Marys Arcade, The Quadrant Shopping Centre. Tel: 0792 43461.
Swansea. The Microstore, 35-36 Singleton Street. Tel: 0792 467980.

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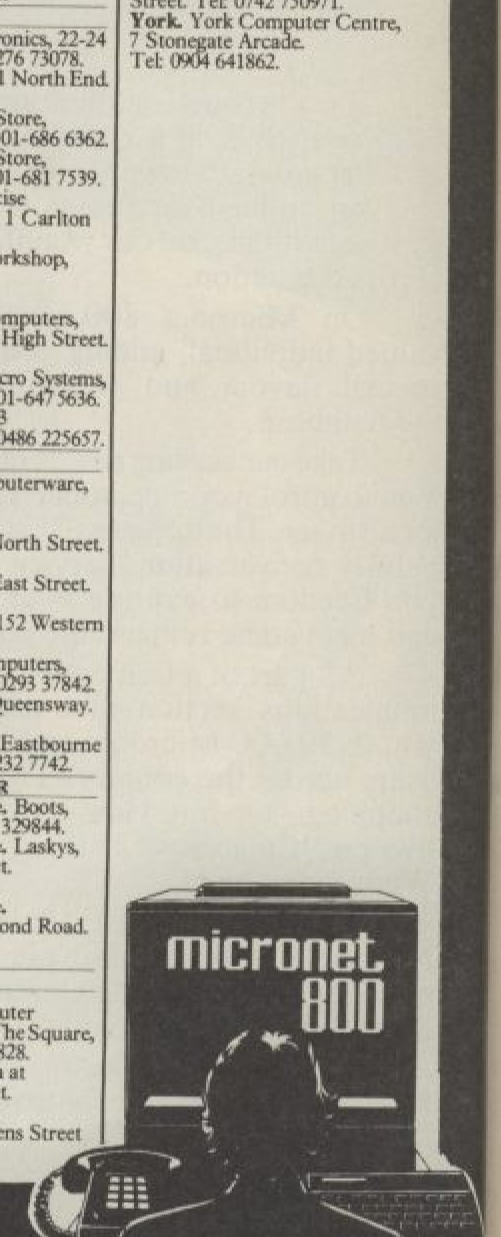
Coventry. Coventry Micro Centre, 33 Far Gosford Street. Tel: 0203 58942.
Coventry. Impulse Computer World, 60 Hertford Street Precinct. Tel: 0203 553701.
Coventry. JBC Micro Services, 200 Earlsdon Avenue, North Earlsdon. Tel: 0203 73813.
Coventry. Laskys, Lower Precinct. Tel: 0203 27712.
Leamington Spa. IC Computers, 43 Russell Street. Tel: 0926 36244.
Leamington Spa. Leamington Hobby Centre, 121 Regent Street. Tel: 0926 29211.
Nuneaton. Micro City, 1a Queens Road. Tel: 0203 382049.
Rugby. O.E.M., 9-11 Regent Street. Tel: 0788 70522.

WEST MIDLANDS

Birmingham. Boots, City Centre House, 16-17 New Street. Tel: 021-643 7582.
Birmingham. Laskys, 19-21 Corporation Street. Tel: 021-632 6303.
Dudley. Central Computers, 35 Churchill Precinct. Tel: 0384 238169.
Stourbridge. Walters Computer Systems. 12 Hagley Road. Tel: 0384 370811.
Walsall. New Horizon, 1 Goodall Street. Tel: 0922 24821.
West Bromwich. DS Peakman, 7 Queens Square. Tel: 021-525 7910.

YORKSHIRE

Bradford. Boots, 11 Darley Street. Tel: 0274 390891.
Leeds. Boots, 19 Albion Arcade, Bond Street Centre. Tel: 0532 33551.
Sheffield. Laskys, 58 Leopold Street. Tel: 0742 750971.
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Better Basic?

An overview of Basic on the Commodore 128 by David Brooks

At last, the Commodore 128 is all set to appear on the UK High Street, offering not just 64 compatibility but a whole lot more. Programmers should be especially attracted by the 128's Basic. Claimed to be the best and most comprehensive version Commodore has ever released, it looks like putting the plodding 64's Basic to shame.

You already know that you can use the 128 just like a Commodore 64. But don't let that tempt you to stay in '64 mode' and miss out on the goodies that 128 Basic offers.

This new version is called Basic 7.0 and it's loaded with useful features that will make programming easier and more fun once you've become familiar with it. Those of you who've used a 64 know that the Basic is probably its weakest feature. It's pretty crude, and since it has no commands for directly accessing graphics and sounds, it restricts two of the 64's best features. Silly isn't it?

The 128's Basic changes all that. It has vastly improved commands in all areas of programming and it includes a whole new set of sophisticated graphics and sound commands.

In this article I'll often be comparing the 128's Basic to that of the 64. Don't worry if you have no previous programming experience, I hope this article will introduce you to some of the important features of any Basic language and whet you appetite for getting to grips with programming on the 128.

New Basic for Old

It's worth pointing out that "Basic" is not just a single language. There are certain fundamental concepts like PRINT and INPUT that are common to all implementations of Basic. But the many versions of Basic differ significantly in the types and number of commands they contain. 64 Basic may appear simpler at first because there are fewer commands, but, in fact, the lack of certain direct instructions make programming harder than it should be.

The PET/CBM machines that were already widely popular when the 64 was born, had Basic verion 4.0 that was much more sophisticated than the Basic 2.0 released with the 64. That weird decision meant that the 64 came off worse, probably because Commodore wanted to protect the superior specification of the PET machines.

More recently, the Plus/4 and C16 computers were given a new Basic version 3.5 that offered many improvements over Basic 2.0, especially in the areas of graphics and sound. However, none of these machines has the graphics and sound capability that the 64 and 128 offer.

Commodore, of course, knew about the limitations of the 64's Basic and various Basic expanders quickly appeared. However, none of the expansions became accepted as standard equipment for 64 owners. As a result, most published programs, articles, and books about the 64 took the reasonable approach of

relying on its resident language to attract more readers.

So it's three cheers for the 128 which has finally brought together the best features of all these versions and extensions with the new Basic version 7.0.

It's a language that includes all the Basic 2.0 commands (that is, the entire 64 language), all the disk and file commands of Basic 4.0, and most of the sound and graphics commands of the Commodore Basic expanders and BASIC 3.5, adapted for the increased capabilities of 64/128 sound and graphics.

Although the 128 is truly a "new" machine, mainly because it can operate in three distinct hardware modes, its graphics and sound capabilities are precisely those of the 64. So Basic 7.0 doesn't magically produce any new capabilities that didn't exist on the 64. The difference is that in the 64, these capabilities were inaccessible to the average Basic programmer, whilst they are much more readily available on the 128. Let's take a closer look at the new language.

A look at Basic 7.0

To make things easy to follow, I've divided the 128's Basic commands into six categories: *programming aids, graphics, sound, programming commands, other functions* and *file handling.*

The commands are taken from a preliminary version of the Basic 7.0 Encyclopedia, and maybe changed slightly in Commodore's final product.

Typically, each command consists of the keyword, which I have always given in capital letters, and one or more user-supplied values (arguments). Some of the arguments are required, others are optional. In all cases, of course, the exact command syntax must be followed in order to use the commands.

Programming Aids

The 128 includes several commands that don't add anything to the capabilities of the Basic language but make programming a lot easier. The only such command in 64 Basic is LIST! With 128 Basic, you can have automatic line numbering with AUTO while you're writing your program, HELP with syntax errors while you're debugging it, and automatic line RENUMBERing when you make program changes.

You can trace the operation of your program with the TRON/TROFF commands. You can clear program variables with CLR. The 128 has a built-in machine language monitor program that can be accessed from Basic with the MONITOR command. RREG defines register values on return from a SYS call.

Graphics

The 128 opens an entirely new world of graphics capabilities to the average Basic programmer. Many capabilities that required an extended Basic or other commercial software on the 64 are now available with built-in Basic commands. The new graphics commands can be divided into several categories:

● **Initialization commands:** COLOR defines a range of 16 colours for each of seven possible colour sources:

No	Source
0	40-column background
1	graphic-mode foreground
2	graphic-mode multicolour 1
3	graphic-mode multicolour 2
4	40-column border
5	character colour
6	80-column background colour

GRAPHIC puts the 128 into one of six graphic modes:

No	Mode
0	40-column normal text
1	high-resolution graphics
2	high-resolution graphics, split screen
3	multicolour graphics
4	multicolour graphics, split screen
5	80-column text

mapped area in memory that can be deallocated with GRAPHIC CLR. You can return to a text format with modes 0 or 5. You can specify the location of the first line of text in either of the split screen modes.

The SCALE command lets you alter the scaling of x and y coordinates on the bit-mapped screens. SCNCLR clears the screen in a specified graphics or text mode. The WINDOW command defines a window within the physical text screen. Although the definition of this command doesn't discuss the point, presumably graphics can be done within this window area.

● **Drawing Commands:** BOX, CIRCLE, and DRAW allow you to construct geometric shapes. LOCATE gives the position of the cursor. You can control the WIDTH of a line as you draw it and PAINT enclosed areas with your choice of colours.

A related command, CHAR, works in either text or graphics mode. It lets you display a string of characters at any specified position on the screen.

● **Sprite Commands:** No graphics language would be complete without some sprite control commands. First of all, you can define a sprite with SPRDEF. This command works like a sprite definition subroutine, with some prompted inputs to assign the sprite number, define it, and exit back to your program.

Sprite colours are assigned with SPRCOLOR and other attributes are assigned with SPRITE. The sprite image can be saved by transferring its dot pattern to a string variable.

The related commands SSHAPE/GSHAPE save and retrieve rectangular areas of multcolour or high-resolution screens using Basic string variables. Sprite collision detection is handled with COLLISION and sprite motion is controlled with MOVSPR.

There are several new Basic functions in 128 Basic that deal with graphics (see panel 1).

Function	Description
BUMP	determines which sprites have collided since the last check.
RCLR	returns the colour source.
RDOT	returns the current position or colour of the pixel cursor.
RGR	returns the current graphic mode.
RSPCOLOR	checks sprite multicolour values.
RSPPOS	checks sprite speed and position.
RSPRITE	returns sprite attributes.
RWINDOWN	returns information about the current display environment.

Panel One

Sound commands

The 128 gives excellent accessibility to its Sound Interface Device (SID). You won't be able to replace the sophisticated music composing programs available for the 64, but it is now very easy to include sound effects and music in your own Basic program.

You can define the SID's attack-decay-sustain-release (ADSR) parameters with the ENVELOPE command. You can set TEMPO and VOLume, and you can also set FILTER parameters. Then you can construct a melody and play it from Basic with the SOUND command.

Programming commands

A major improvement in 128 Basic is its greater ability to control the way the program flows. It's often the case that programs don't proceed straight through from beginning to end, but must take one of possibly several branches depending on specified conditions. The GOTO, GOSUB, ON . . . GOTO/GOSUB, and IF . . . THEN are examples of such commands in 64 Basic.

More sophisticated versions of Basic commonly include several other types of branching commands that help you develop better programming habits, along the lines of what's known as *structured programming.*

Ideally, structured programs written in Basic should contain no GOTO statements at all, as the idea is to handle all possible program branches as they occur, without having to jump to another place in the code. The 128's Basic allows you to come very close to this ideal.

But why bother? Because structured programs are easier to read and understand, and a variety of branching commands allows you to program your logical decisions in a more natural way.

So, in addition to the IF . . . THEN command for making branching decisions, 128 Basic includes IF . . . THEN . . . ELSE, BEGIN . . . BEND, and DO/LOOP/WHILE . . . UNTIL/EXIT commands.

The most obvious of these is IF . . . THEN . . . ELSE, because it simply extends the capabilities of IF . . . THEN to include all the consequences of an either/or decision in one Basic statement. This command is restricted to a single line of Basic code, but the 128 allows 160 characters in a line instead of the 64's 80.

Sets of instructions that are too long to fit on a single line can be performed within either the IF . . . THEN or IF . . . THEN . . . ELSE syntax with BEGIN/BEND. Here's an example:

```
100 If X< THEN BEGIN
110 A=2
120 B=3
...
190 BEND:ELSE BEGIN
200 A=1
210 B=2
...
290 BEND
```

And what about loops? In 64 Basic, the looping instruction is the FOR . . . NEXT command. With this command, the number of times the loop is to be performed must be specified in ad-

vance. With more sophisticated commands, you could perform operations inside a loop until a specified criterion has been met.

The significance of this takes some grasping. Remember that leaving a FOR . . . NEXT loop before it's finished (perhaps with a statement like IF . . . THEN GOTO somewhere outside the loop) is very bad programming practice and can eventually cause your program to crash.

So the 128's DO . . . UNTIL or DO . . . WHILE command allows you to perform a set of operations when you don't know in advance how many times you will need to do them, without the problems of incomplete FOR . . . NEXT loops.

Another welcome addition to 128 Basic is the TRAP command. You know there's no way in 64 Basic to recover from errors detected by your program? With TRAP, you can plan for certain types of errors and respond to them accordingly with the RESUME command.

Remember what you have to do in 64 Basic is to wait for a key to be pressed?

```
10 GET Z$: IF Z$ = "" THEN
  10
```

Well, now you can use the single GETKEY command to tell your program to wait for a key to be pressed. You can program the response of function keys with KEY. You can also build in program pauses without writing empty FOR . . . NEXT loops with the SLEEP command — cute, huh?

Other Functions

In addition to all the 64 functions and the graphics-related functions defined above, C128 Basic also includes other new functions (see panel 2).

Function	Description
DEC	returns decimal value of hex number.
ERR$	returns string describing error condition.
HEX$	returns hex number string from decimal.
INSTR	returns position of one string in another.
JOY	returns position of joystick and fire button.
PEN	returns X and Y coordinates of light pen.
PI	prints value of pi.
POS	returns character cursor position on line.
POT	returns value of game-paddle potentiometer.
XOR	returns exclusive OR of two arguments.

Panel Two

File Handling

The 64 has never quite made it as a 'real' business computer because the 1541 disk drive is so slow. The 128's new 1571 drive should solve the problem, but you can still use the 1541 with the 128, even in '128 mode'.

Since Commodore peripherals contain their own operating systems, you'd expect the 128's disk commands to be identical to the 64's. They are, but the syntax is easier to deal with. So you get DLOAD, DSAVE, DOPEN and DVERIFY which don't need a device number to indicate they're disk commands.

Remember the disk wedge program on the 64 that lets you view the directory without scrubbing whatever's in memory? A similar command on the 128 takes care of the problem. Also, HEADER lets you format a disk, BOOT loads and executes a program and BACKUP — well it does the obvious.

The APPEND command lets you use PRINT to append data to the end of a file, whilst CONCAT merges two files. BLOAD/BSAVE loads and saves a binary file into any memory location. Finally, COLLECT makes available disk space that's been allocated to improperly closed files.

So the 128's Basic Version 7.0 is a combination of the best features of existing Basics, and has already prompted the view that it's what 64 Basic should have been all along.

What really matters is that 128 owners now have a complete Basic that lets them use their machine's power to the full without having to buy expensive Basic extensions. And that should make your programming not only easier and more fun, but actually better. □

• Next month, we'll be looking at CP/M on the 128: what is it, will the 128 run off-the-shelf CP/M software?

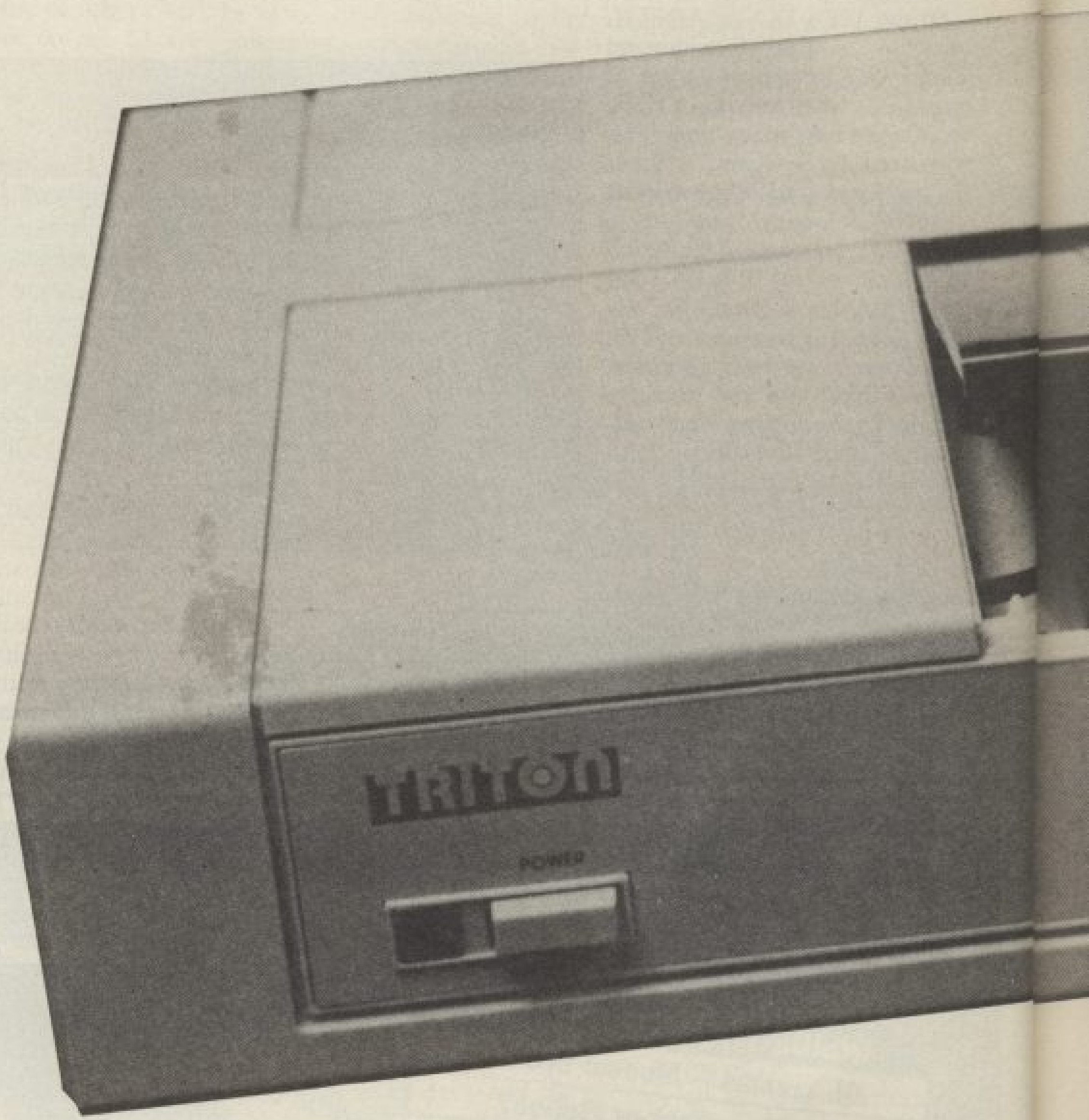
GO-FASTER DISK

THE TRITON QUICK DISK REVIEWED

by Karl Dallas

The 1541 has endured more than its fair share of criticism for slow speed and dubious reliability. That may not bother the home user too much, but its rather inflated price will. So the Triton Quick Disk at £119.95, looks like being a pretty good bargain. It claims to load and save quicker, and has a built-in tape to disk copy utility.

The drive itself, and its 2.8 inch format, was originated by the Japanese Mitsumi company and is now imported by UK firm, Radofin, who is having them manufactured under licence in Hong Kong. So let's have a look at it.



Exterior looks

The Quick Disk looks a bit like a telephone answering machine, albeit colour-co-ordinated to the 64. It's squarer but less bulky than the 1541 and has a front-loading mechanism, with a perspex lid, for inserting disks. Round the front, there's a power switch, but there's no sockets at the back.

That's because an interface box is provided that plugs into the user port — the connection is duplicated on the box (apparently versions are also available for MSX and Spectrum machines). The box also has a toggle switch to number the drive as 1 or 2 when two units are used. The drive also needs to be connected to the mains.

The disks themselves have a rigid plastic casing but, unlike the 3.5 inch variety, there's no sliding cover to protect the slot where the head meets the disk. They're still much sturdier than 5.25 inch disks. Disks aren't double-sided but 'flip-over', so you get up to 50K on one side and (flip it over) 50K on the other.

Powering up

Not surprisingly, you turn on the Quick Disk before the computer and then type SYS 327678, which produces the slightly cryptic message: *** C64 T-DOS V1.0 ***.

If you have more than one drive attached (at £120 each, why not?), you'll need to specify which is to be the 'logged-on' drive. This can be changed at any time with a simple direct command. The Quick Disk uses 1 and 2 as drive designators rather than the 1541's 0 and 1 — slightly confusing.

Before you can use a disk, it must be formatted, using the @FORMAT command. By the way, all Quick Disk commands are preceded by the '@' symbol. The disk is formatted into 20 sectors of 2560 bytes each. If a program just slips into a new sector, the rest of that sector's space is wasted, so careful planning is necessary to make the most of the limited space.

The disk commands

Most of the commands are self-explanatory, and you'll find them listed in the table. But commands like LOAD, SAVE and WRITE do have some more interesting and useful functions.

For example, the @DIR command displays lots of useful information, not just file names and lengths (in bytes) but also whether they're Basic or machine-code (B or M). You're also told how many bytes are left on each side of the disk.

When WRITEing machine-code programs, though, you must specify the start and end address. The execution address can also be specified, otherwise the system defaults to the start address.

If you try SAVEing a file under a name that already exists, an error message warns you that the existing file will be erased if you proceed. Also, you can specify an offset address to prevent something already in memory being overwritten.

It's also possible to LOAD and SAVE data arrays without having to WRITE each element of the array disk, one at a time. The array command ASAVE is very powerful but limited to eight characters; each array can be identified with the usual suffixes indicating string or integer. You can also add REM-type comments to jog your memory later.

Unfortunately, there is no random access facility, so any manipulations, amendments etc., must be done in memory. This means the size of data files is limited by the amount of memory in the machine, after the relevant program has already been LOADed.

Finally, you can COPY files and entire disks, but you must have two disk drives. Funnily enough, the MSX and Spectrum systems do this with one disk — why not the 64?

The two 'waferdrives' we reviewed last month aren't true alternatives to the 1541, simply because they don't use disks. Enter the Triton Quick Disk, with it's 2.8 inch disk format. It may be non-standard but, at £119.95, it sounds like being a bargain for your Commodore 64 system.

The lack of random access may hinder the Quick Disk as a business tool, but it's certainly a more sensible medium than 'waferdrives' and a good deal faster than the 1541 at a fraction of the price. In short, I liked it.

Next month, we'll be reviewing a true 1541-compatible disk drive, the American-built Enhancer 2000. □



Using the Quick Disk

The Quick Disk certainly lives up to its name. It took just seven seconds to load an 18K program, compared with 30 seconds for the 1541 and three minutes for the datasette — pretty good going.

But loading commercial software presents a problem. Despite the @CASSCOPY command, I couldn't find a single game cassette that would copy on to disk. Since nearly all games are protected these days, the utility will become rather useless for avid games players — and for budding software pirates.

Of course, that's not the fault of the hardware: @CASSCOPY happily copied anything that was unprotected. Having prompted you to 'press play on tape', each block of code is verified automatically, with appropriate messages displayed on the screen.

Conclusions

The Triton Quick Disk is a serious storage medium whose speed leaves cassettes and even the 1541 standing. Despite the copying facility, those of you who want to copy your stock of games tapes onto disks will be severely frustrated.

That problem will be solved only if software houses decide to release their products on the new 2.8 inch disk. So far, no announcements to this effect have been made from neither business nor games software houses. There may be hope, though, since the device is also available for MSX and the Spectrum.

- **Triton Quick Disk for the Commodore 64**
- **Radafin Electronics UK Ltd Hyde House The Hyde London NW9 6LG 01-025 0044**
- **Price £119.95**
- **very good value**

Command	Function
@D1/D2	to select a different disk drive, if more than one is fitted
@ACOPY	format disk and copy disk to disk (twin-QD system only)
@ASAVE"array-comment"	to SAVE an array
@CASSCOPY	copy from cassette to disk
@COPY	copy individual files from disk to disk (twin-QD system only)
@DIR	obtain disk directory
@FORMAT	to format a disk
@KILL"filename"	to delete a program or data file from disk
@LOAD"program"	to LOAD a Basic or machine-code program or array
@QUIT	to return to normal Basic
@RUN"program"	to LOAD a Basic or machine-code program and execute it
@SAVE"program"	to SAVE a Basic program
@WRITE"filename"	to SAVE a machine-code program or data file


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MOUSE IN THE HOUSE

Connexions Magic Mouse reviewed

by Chris Durham

A little while ago, the sight of a mouse next to your computer would have sent you running for the mouse-trap and the cheddar. Now computer 'mice' are all the rage. And the Commodore 64 has finally got one, a mechanical rodent that helps you design sprites and graphics. But at £59.95, is it good value?

The computer 'mouse' was originally hailed as the thing that would finally allow the busy executive to make full use of the computer. No longer would he have to learn keyboard skills to get the most from his machine. By moving a mechanical device around his desk, he would make a small symbol move about on the screen.

By pressing a single button when the symbol was in the right space on the screen he could file a letter, read a file or operate a spreadsheet. The word 'icon' was used to describe the small symbol on the screen, commonly a pointing finger.

The mouse may have started life as an executive toy, but they're now appearing in various forms for use on home computers; but just how useful are they?

Magic Mouse costs £59.95, is made by SMC Supplies and comes complete with software on both tape and disk. The programs allow hi-res graphics, sprite designs and icon designs to be drawn using the mouse. There is also a routine for using icons in your own program.

Mousey looks

The mouse is nicely hand-sized and has three buttons on the front edge coloured red, blue and yellow. The first two are for selecting the various options, while the yellow button is reserved for re-starting programs. The unit is well packed for transit and the first thing that you have to do is to put the rubber ball into the base of the unit and then calibrate it.

The calibration is to ensure that the icon covers the whole screen without disappearing off the right-hand side or bottom edge. There are two small screws underneath allowing adjustments to be carried out. This really only needs to be done once.

The software

The software on both tape and disk is identical, except that with the tape you have to load each program separately; with the disk it is all done from a menu, selected using the mouse, naturally! Both the tape and the disk use fast-loading systems, which has to be an advantage (provided your equipment can cope with the faster data rates).

The hi-res graphics program is similar to those which come with graphics tablets. You select your option from a menu on one page and then swop to the graphics page to do your drawing.

Most of the usual commands are there, you can change brush sizes, dump your creations to disk or printer and select any colour for foreground and background.

The one command I felt was lacking was a 'try again' option, which would erase everything you had done since the last menu access. I have found this invaluable on other graphics packages since it allows you to try something out and then delete it if you don't like it. The only way of removing something from this screen was the 'rub' command; which would also delete what was underneath the error if it crossed anything already on the screen. Apart from that it was quite easy to use.

Although the sprite designer and icon designer programs are entirely separate, they are virtually identical in operation. Both use a grid on the left hand side of the screen for designing the object, the top right hand part of the screen for displaying the object as it will appear on screen and the bottom right area for the 'command' keys.

The icon, which is the standard pointing finger, is moved to the grid and the finger is then made to point at the required pixel position. The red button turns the pixel on while the blue one turns it off. Once you have designed your object you move the icon to the 'command' keys which appear as soon as the icon leaves the grid.

By pointing to the required key and pressing the red button you select the function. The functions include saving the objects to disk, changing the colours, expanding X and Y sizes, erasing objects, etc, etc. Both programs work well, but there were occasions when two or three tries were necessary to point to a particular pixel. This was not a problem when it came to the command keys since anywhere within the boundary of the key was valid.

The final piece of software sets up an icon for use in your own programs. It loads the machine code routine to create the icon and move it even without your program present. Your program can either be loaded afterwards or can themselves load the icon program; by reading the required PEEK addresses you can calculate the position of the icon at any time. This was very easy to do and it would be possible to create your own icons and use those instead if you wished.

Using your mouse

But one of the first things you discover once you start using the mouse is the amount of clear desk space that you need. A minimum area 10" deep and 9" wide is necessary; similar in size to a piece of A4 paper. Now most home computer users, and I am no exception, do not have unlimited space for all their computer gear. By the time you have a disk drive, TV, printer, disk box and cassette recorder etc, not to mention the computer itself, there is usually little spare space on the average computer table, trolley or bureau!

My particular desk was just not quite large enough, with the result that I had to keep picking the mouse up and moving it back in order to get the full area of travel.

The second problem I had was that the surface is polished (or was once upon a time); unless I kept a fairly constant pressure on the mouse it would occasionally slip without moving the icon, thus reducing the movement I could get without having to pick it up.

I therefore tried it on a number of different surfaces. In every case there was a degree of slippage, even on vinyl.

Although there is a sprung wheel keeping the ball tensioned, it was almost as if the ball was slightly loose and binding occasionally. Where the icon was pointing to a large area it made little or no difference, but when trying to position the icon accurately it became rather annoying.

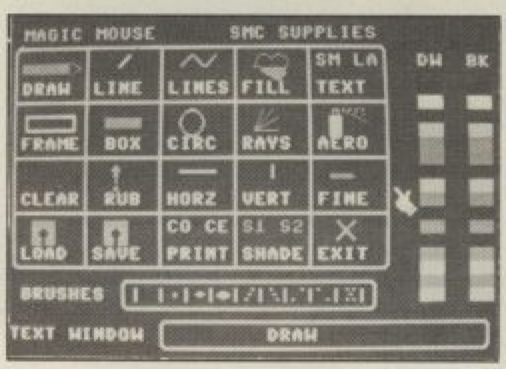
For example, moving the mouse a fraction had no effect, move it a little more and suddenly the pointer moves past the point you wanted. And so it goes on — rather annoying. Maybe my review mouse was rather stiff and will loosen with use.

Whatever the reason, when compared to either a graphics tablet or a light pen for this type of graphics drawing, it would come bottom of my personal preference. Although there was a 'fine' option on the menu, this only allowed you to draw or erase a pixel at a time; you could not position the pixel accurately with it and then draw a box, since as soon as you returned to the menu to select the 'box' command, the pointer moved with the mouse!

The manual

The 22 pages of instructions were quite adequate for using the mouse, although some parts only really became clear when you actually ran the program in question. It covers all the commands and gives the necessary PEEKs and POKEs to enable most people to experiment beyond the programs supplied.

Short Basic programs are also included, one of which shows how to display the graphic drawings in your own programs. Although there is no index, this is not really necessary in such a small manual as this.



Applications

If you think about the history of mice (mouses?), they were designed to save typing on the keyboard. The icon only had to point to a fairly large area to indicate some function; rarely was it used for pixel accuracy. Therein lies one of the problems for the Magic Mouse, one of identity.

It struck me that the programs supplied with it were really only there to let you do something with it when you bought it. Yet there are applications which I have done better in the past *without* a mouse. To me, a mouse is ideal for someone with limited keyboard skills who wishes to move rapidly through a series of commands or menu selections; the fact that it also has rather a novelty value does no harm at all.

If a program like Commodore's *Magic Desk* were to be used with a mouse then OK, but personally I cannot see that it has any advantages over a graphics tablet when it comes to drawing.

If you have a need for a menu-driven, command based program and you like the idea of using a mouse then Magic Mouse is for you, otherwise . . .?

Conclusions

At £59.95, Magic Mouse is not exactly cheap. I cannot think that anyone will buy one just for the software, since it is not ideally suited for this sort of application. Nevertheless, I am sure that the novelty value will appeal to a number of people who will be more interested in incorporating it into their own programs.

The mouse's real future lies in the availability of software that will make it of real use; some has already been announced by the suppliers, such as *Business Bonus*, an accounts, spreadsheet and diary program. It is only by using a mouse for things that a mouse is best at, that they will really find a (mouse) hole for themselves in the home market. □

- Connexions Magic Mouse
- SMC Supplies
  11 Western Parade
  Great North Road
  Barnet, Herts EN5 1AD
  Tel: 01-441 1282
- Price £59.95
- Not really suited for drawing

More from Hampshire

Nick Hampshire is an old hand at writing books on the Commodore 64, having 'revealed' virtually every part of the machine worth looking at. *Advanced Commodore 64 Graphics and Sound* deals mainly with how to introduce extended graphics commands to the 64's puny Basic. That's not to say the sound element has been ignored, some highly ambitious projects have been included.

As I said the bulk of the book is taken up with listings of machine-code routines which add another twenty seven commands to the 64's Basic. These take up over 9K of memory, a fair sized chunk, but of course you don't have to type them all in, you can skip any you don't think are going to be incredibly useful.



If the thought of typing in that much assembly code daunts you, the programs are available on disk for a mere tenner. The initial assembly listings are for patching the new routines into the 64's Basic, naming and tokenising them, it's therefore essential that these are entered.

Next come the actual routines themselves. These range from screen management routines which configure the various graphics modes, set up colours and define windows, through to two and three dimensional plotting routines, some of which are very powerful indeed.

All of these routines are in CBM assembler format. This means they contain the usual directives such as BYT and WOR so you shouldn't have too much difficulty converting if you're using a non-standard assembler.

Although the extended graphics section takes up over half the book there's quite a bit more of interest. A chapter on the theory of high-resolution graphics display contains some interesting programs for plotting and moving 2-D shapes as well as how to design and plot realistic 3D images. Finally, on the graphics side, some hints and techniques are provided on how to incorporate graphics into games.

Although there is only one chapter on sound in the whole book, it's not the case that the subject has been given scant attention. There are two projects.

The first shows you how to design an interface and software to connect a keyboard to your 64. This task I am assured can be undertaken by anyone with a small amount of electronics experience which excludes me, but it looks like fun.

If you don't have a soldering iron the second section might appeal more. This deals with how to incorporate music into games using interrupt driven routines.

Unlike many so called advanced books around at the moment, Nick Hampshire's actually does contain some complicated techniques and I wouldn't therefore recommend it to the beginner. So don't bother with it unless you feel at least reasonably confident with machine-code. If you do then it's well worth a look.

Ken McMahon

- **Advanced Commodore 64 Graphics and Sound**
- **By Nick Hampshire**
- **Collins Professional and Technical Books 8 Grafton Street, London W1X**
- **£10.95**
- **Definitely one for the advanced programmer**

Artificial brains



Artificial Intelligence is all the rage right now, although not many people know what it is and how far it's been developed. If there is a thinking, reasoning computer out there, the boffins are keeping it pretty quiet — it's definitely not the 64. Let's look at the book, anyway.

The author begins with an introduction to the concept of Artificial Intelligence (AI) — what it is, how it can be used, and perhaps most relevant, how and why you can run AI programs on the humble 64. I think it was at this point that I began to disagree with him.

Each chapter consists of a brief explanation of the topic under discussion, and then attempts to illustrate the concepts involved by means of Basic programs. Hence, we start with intelligent games, in which Mr. O'Malley goes into the historical and practical details of chess, checkers (draughts to us Brits), Othello, and backgammon — hardly examples of AI.

Following this there are three Basic programs to type in. About the most interesting of these is a program which plots a path through a maze. *Nim*, a game where you have to pick matches from a pile, leaving your opponent with the last one is surpassed in its capacity to bore only by the brain numbing *Life*, the third in the trio.

To be fair to the author he has managed to introduce aspects of AI programming into the games, but these kinds of examples are meant to enhance, not detract from the text.

From intelligent games we move onto more serious stuff. Bootstraps — programs which modify parts of themselves as they run, are illustrated with two stunningly boring programs which do indeed modify themselves, but do little else of practical value. Natural Language processing (making the computer understand English) is a slightly more interesting subject.

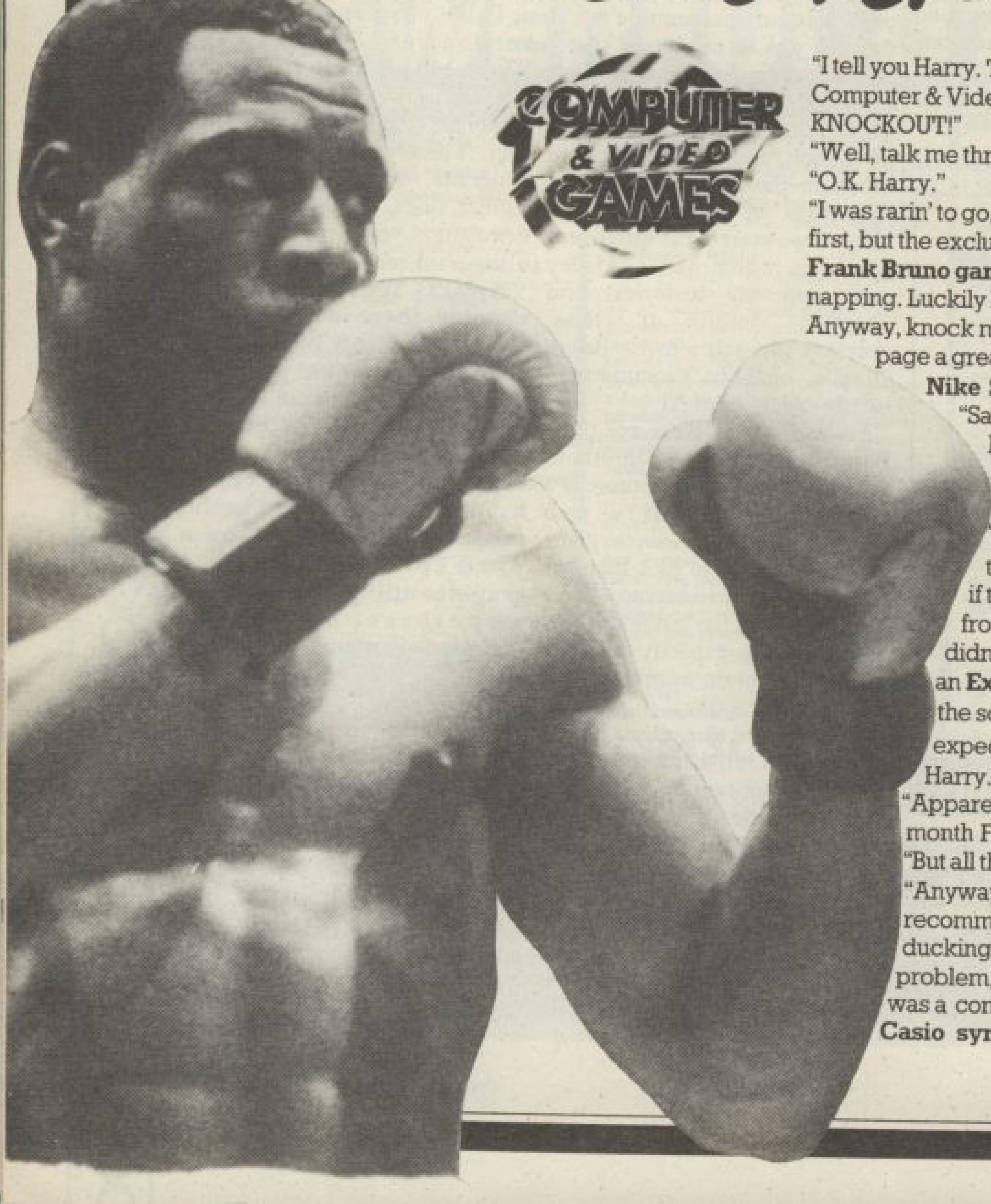
This chapter contains a version of *Eliza*, Joseph Weizenbaum's famous program which gives human like responses to phrases input by the user. There is also another good program which runs along similar lines, but draws logical deductions from your input using set theory.

Apart from that one chapter, there is little else to recommend this book to me. The subject would be a lot more interesting if it had been dealt with in greater depth and the program examples do little to rescue it. In fact the two most useful programs in the book are a word processor and a graphics utility, though quite why these have been included I'm not altogether sure.

Ken McMahon

- **Artificial Intelligence Projects for the Commodore 64**
- **By T.J. O'Malley**
- **Tab Books Inc.**
- **A fairly dull, uninteresting**
- **book**

"I tell you Harry the August issue of Computer & Video Games is a real knockout!"



"I tell you Harry. The August issue of Computer & Video Games is a real KNOCKOUT!"

"Well, talk me through it Frank."

"O.K. Harry."

"I was rarin' to go, as I came out for the first, but the exclusive review of the **Frank Bruno game** really caught me napping. Luckily I was only winded. Anyway, knock me down. On the next page a great competition to win **Nike Sports** gear."

"Saved by the bell, then Frank?"

"You're not kidding Harry."

"Ding, and it's out for the second. Blow me if this Oriental chap from Melbourne House didn't catch me with an **Exploding Fist.** Not the sort of thing you expect at the Albert Hall, Harry."

"Apparently it is game of the month Frank."

"But all the same Harry."

"Anyway, the trainer recommends a bit of ducking and weaving. No problem, on the next page was a competition to win a **Casio synthesiser.**

Now I'm really dancing. I jab through the **Max Headroom** interview — real weirdo that one, Harry, and give it the old one-two for the special 12 page **Atari supplement."**

"Ahead on points. I stroll out for the last round."

"Not advisable Harry."

"There's the whole of the **Dallas Cowboys, John McEnroe** and **Rocky 56** all in the ring together, in a special C. & V.G. round up of sports games."

"Sounds like your hardest fight to date, Frank."

"No Harry, hardest one was getting the copy from the newsagent. They were nearly sold out."

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RITEMAN FOR THE JOB?



The Riteman C Plus printer reviewed
by Bohdan Buciak

Following hard on the heels of last month's review of the Star SG-10C, comes the new Commodore-compatible printer from C-Itoh, the Riteman C Plus. Not only is it truely plug-compatible but it features a unique design. Looks apart, though, how did it perform?

Companies like Epson and Star used to make dot-matrix printers only for business. Now they're muscling into the home computer market. Japanese printer giant, C-Itoh, is no exception. It's just introduced the Riteman C Plus dot matrix printer especially for the Commodore Vic, 64, 16 and Plus/4 computers. At £240 plus VAT, it's not exactly a budget model but it solves your interface problems and it has an up-market specification.

Good looks

The most striking thing about the Riteman C Plus is its unusual and unique design. Two folding 'legs' prop up the lightweight printer about three inches above the desk-top, allowing continuous paper to sit underneath, thereby saving considerable desk space.

Since the paper feeds through horizontally from the front, the tractor feeds are also horizontal and the print head faces downwards — odd but effective. One advantage of this is that thick paper and envelopes can be used since the rollers don't bend the paper. A print-head pressure selector on the left lifts and lowers the head for thick paper or for bolder print.

There's the usual panel with buttons for form-feed, line-feed and on/off line, and a clear perspex hood that helps to dampen noise when printing. Round the back, there's two DIN-type serial sockets, so you can link two computers. But there's no Centronics or RS232 port. That may cause problems if you eventually decide to upgrade to a non-Commodore computer.

The specifications

The Riteman prints bi-directionally at a nippy 105 characters per second, using a nine by six needle print matrix, which gives true descenders. Both friction and tractor feed are supported, with the tractor mechanism built-in. Although it's easy to insert paper, the tractor feed clips feel rather flimsy. A simple lever toggles you back to friction feed.

The Riteman prints the complete Commodore graphics set and upper/lower case. Normal print is 80 characters per line, which can be compressed to 132 per line or expanded to 40 per line by setting the DIP switches, located reasonably enough under a screw-off panel at the top of the printer.

There's a double-strike facility, reversed characters, super- and sub-scripts and a bit image graphic mode. Line spacing and various international character sets are also selectable. The Riteman also has a one-line buffer.

Unfortunately, the ribbon is similar to that rudimentary system used on Commodore's now-defunct 1515 model: a self-inking loop running between two holders, with the print-head moving it along as it prints. It works well enough but looks rather makeshift.

Print it out

So let's plug it in and go. The Riteman works in two modes, Standard modes 1 and 2, and Plus mode, selectable by changing the DIP switch positions. The former two print in upper/lower case and in graphics mode. So you'd use them for program listings, printing graphic codes and characters and for bit-mapped graphics.

Print quality is good since the machine

uses its double-strike facility when it meets a graphic. All the codes are sharp and well-formed. The trade-off, though, is a loss of speed if your program contains lots of them.

Plus mode is used in conjunction with software such as wordprocessors, filing packages and spreadsheets — anything that involves printing out text. Setting a DIP switch gives and 80 or 132 column option — 132 columns being useful for condensing a large spreadsheet onto A4 paper. Generally print quality is up to good dot matrix standards but falls short of near-letter quality.

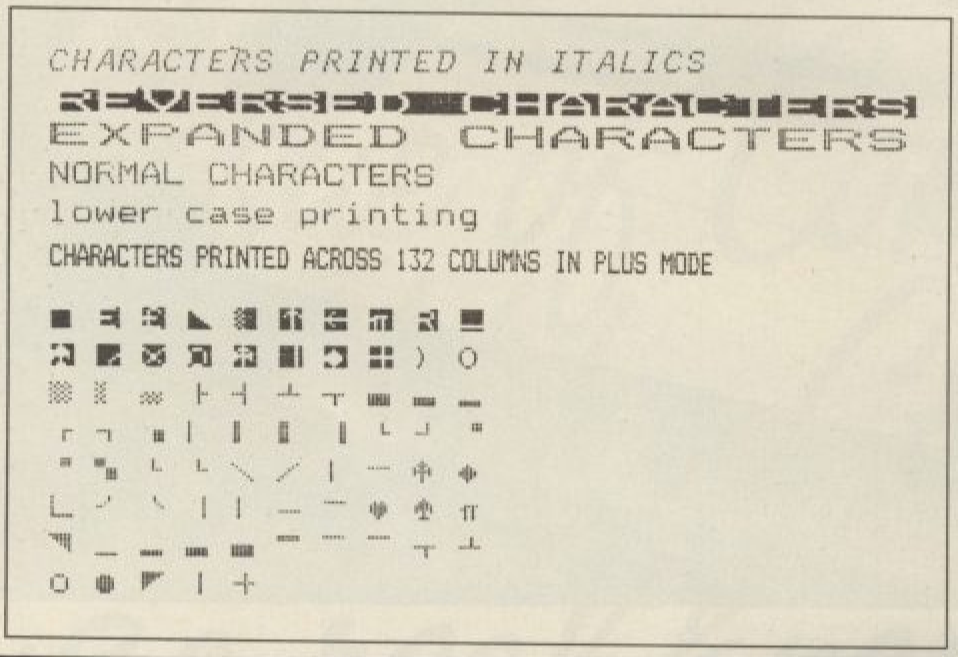
A word of warning: there's so much software on the 64 that it wouldn't be possible to test the Riteman with all of them. The Riteman performed with everything we threw at it, with a couple of exceptions. So it's really up to you to get a comprehensive demo before you commit yourself.

Documentation

Once again, we've got a badly translated manual. Not only that, there's a large 'errata' sheet — neither inspire confidence.

Installation and setting up is handled well, mainly because the drawings are good. But the manual fails to impress with its descriptions of the various CHR$ control codes and the example Basic programs.

Standard modes 1 and 2 codes are comprehensible but Plus mode causes real problems with its use of ESCape codes both in decimal and hex. You must work out for yourself that you must use the alphanumeric equivalent of the code given, and what syntax to use. By the way, the difference between Standard modes 1 and 2 is never really explained. My guess is that it's something to do with secondary addressing — but it should have been made clearer.



Conclusions

It's difficult not to compare the Riteman with the Star SG10C (reviewed last month) which performed better in most respects, admittedly for £20 more. On the bright side, the Riteman is smaller, lighter and unusually well designed — and it's pretty quiet. But the print quality, documentation and generally flimsier feel make it that bit less attractive.

- Riteman C Plus printer
- C.Itoh Electronics Ltd
  Beacon House
  26/28 Worple Road
  Wimbledon, London
  SW19 4EE
- Price £240 + VAT

THREE PIECE SUITE

Triangle, Superscript-64 and Powerplan reviewed

by Karl Dallas

New business packages for the Commodore 64 are piling into our offices thick and fast. This month we're looking at Triangle, an incredibly cheap integrated wordprocessor, spreadsheet and file manager, the new Powerplan spreadsheet and graphics program and the equally new 64 implementation of Superscript.

Integration on the cheap

The most important news about the incredibly inexpensive **Triangle** package from Argus is that, for once, here is something that really lives up to the blurb on the cover: a neat, businesslike package that really does allow you to work on a word-processed document, a spreadsheet and database file one after the other, and to transfer files between them.

It isn't quite Lotus Symphony, of course, but if one compares it with the ill-fated Three-Plus-One software within the ROM on the Plus/4, the extent of the missed opportunity there becomes only too obvious.

Each of the three modules is quite a respectable implementation. The wordprocessor allows up to 400 lines of text to be entered and for one file to be linked with the next on printing, so an entire book could be handled, if you have ambitions in that direction.

The spreadsheet is of medium size: 40 columns wide by 60 rows deep, but it has all the necessary commands, including columns of differing widths (from 2 to 36 characters wide), windowing, and relative addressing within formulae.

This means that a formula can refer to others by putting a minus or plus figure within brackets, e.g. (−2) refers to a cell two rows higher, (+3) to one three rows lower.

This is handy, but not so useful as the choice of absolute/relative which Visicalc offers you when a formula cell is moved or copied.

A block of a spreadsheet can be SAVEd as a document for merging with word processing, but it is important when defining the block width to ensure that it isn't wider than the WP software can handle.

The main function of the file manager is obviously to act as a mailmerge facility and it is admirably suited for this purpose. Each record may not exceed 230 characters, and each field has a limit of 29 characters. There is a limit of 17 fields per record.

Searching on two fields is permitted (field keys may be partial, i.e. the first few letters of the field) but there is no browse facility. So while there is a specimen file on the disk, it's hard to find your way round it without knowing what you're looking for. The manual contains no information about the disk contents.

Switching from one program to the other is not exactly instantaneous: from WP to spreadsheet took 37 seconds, from spreadsheet to WP 47 seconds, and from spreadsheet to file manager about a minute. This is because each new program has to be chained from disk. You loose any text in memory at the same time.

The word processor will not please the 'what you see is what you get' brigade, since it does not attempt any kind of word wrap, meaning that words are broken when they fall across the end of one line and at the beginning of the next. The screen display is 39 characters wide and a display at the bottom indicates your line number (starting, confusingly, at 000) and column position.

Triangle's file-manager program integrates with the spreadsheet and WP.



This failure to indicate what things are going to look like is particularly noticeable when a spreadsheet block is incorporated into text, since the columns wrap round if the area merged is wider than 39 characters.

The 14-page manual is remarkably clear and easy to follow, the only real lack being any reference to the demo files. Even without the manual, the three modules are very easy to use, being amply supplied with mnemonic commands, displayed on screen Multiplan-wise, plus help windows, which pop up whenever F8 is pressed. Sometimes, further sub-windows are nested within windows for further information.

Disk commands, like directory and formatting, can be accessed from within the program, which is useful.

All in all, this is a £20 package that is so cheap yet so useful that it's going to be hard to beat.

- Triangle
- Argus Press Software
  Liberty House
  222 Regent Street
  London W1R 7DB
  Tel: 01-439 0666
- Price: £19.95 (disk only)

Superscript for the 64

After literally thousands of 64 users have learnt the rudiments of what makes a good word processor from the Easyscript package supplied with the 1541 disk drive, the end of their bundling agreement with Commodore has allowed Precision to upgrade the package with the new **Superscript 64**, taking into account the improvements incorporated in the versions for the Commodore 8000 and 700 series business machines.

In fact, this new version of Superscript is in many ways more powerful than either of the two business versions, and the C128 implementation is designed to sit alongside their Superbase file manager to provide just about the most powerful integrated package available for any machine — including the new Commodore PC.

Interestingly, Precision have decided to concentrate on developing the C128 versions rather than to adapt the package for the PC, as some of their competitors (Viza, Handic) have done.

The first big improvement that will be obvious to any user, whether they've had experience of Easyscript or not, is that the new one is entirely menu-driven, so that it is possible to operate the program without constant reference to the excellent ring-bound (but unindexed — shame!) manual.

In any case, pressing F8 will produce a help screen at any level, if the mnemonics are not clear enough for you.

The menu is accessed by pressing F1, and each menu choice usually produces a sub-menu of more detailed choices. For instance, if F1 is pressed from the edit mode, the following menu appears along the top of the screen:



Superscript 64 — a radical improvement on the popular Easyscript.

GO ERASE PRINT DOCUMENT
SET TAB
LAYOUT QUIT CALC FEATURE
HELP

You can move the menu cursor along to the option you want, then press RETURN, or you can just press the initial letter of the chosen option, so that pressing G for GO will produce the following sub-menu:

START END TOP BOTTOM LEFT
RIGHT
NUMBER UP DOWN PREVIOUS

for moving around the screen. After a short time, the user learns the key sequences almost without trying, so that F-E-S will move the cursor to the beginning of the text, and though the menus may flash up along the top of the screen while the keys are being pressed, scant attention is paid to it.

Any key sequence can be repeated immediately, and at superfast speed, by pressing CTRL and R immediately afterwards. This will always repeat the most recently used menu key sequence.

Two other improvements are the provision of a calculator function and the fact that the spelling checker is now an integral part of the program. Up to 10 decimal places can be defined (2 are the default) and it is possible to multiply, divide, add or subtract (down columns or along lines), and either insert the result into a document or hold it in memory for display when required.

The spelling checker comes with a 30,000-word master dictionary (the program disk offers US and UK options, one of which is copied to the working disk on setting-up the system), and a document in memory can be checked at any time. Any unknown word is highlighted and you choose whether or not to incorporate it into the dictionary.

There is also a *Word Search* function which allows the user to type in a word the spelling of which is uncertain, and all similar words will be displayed to help you get it right. Wildcard characters (?) and (*) can be used in the usual Commodore way when typing in the parameters of the word to be searched.

Though documents can be word-

wrapped on screen, like Easyscript before it, Superscript 64 does not offer a WYSIWYG display, though since the screen width can be configured for any number of characters between 40 and 240, something very like the finished appearance can be obtained, if the screen width is set equal to the desired printed width.

If the screen width is over 40 characters, then horizontal scrolling is employed when the typist goes past the rightmost limit.

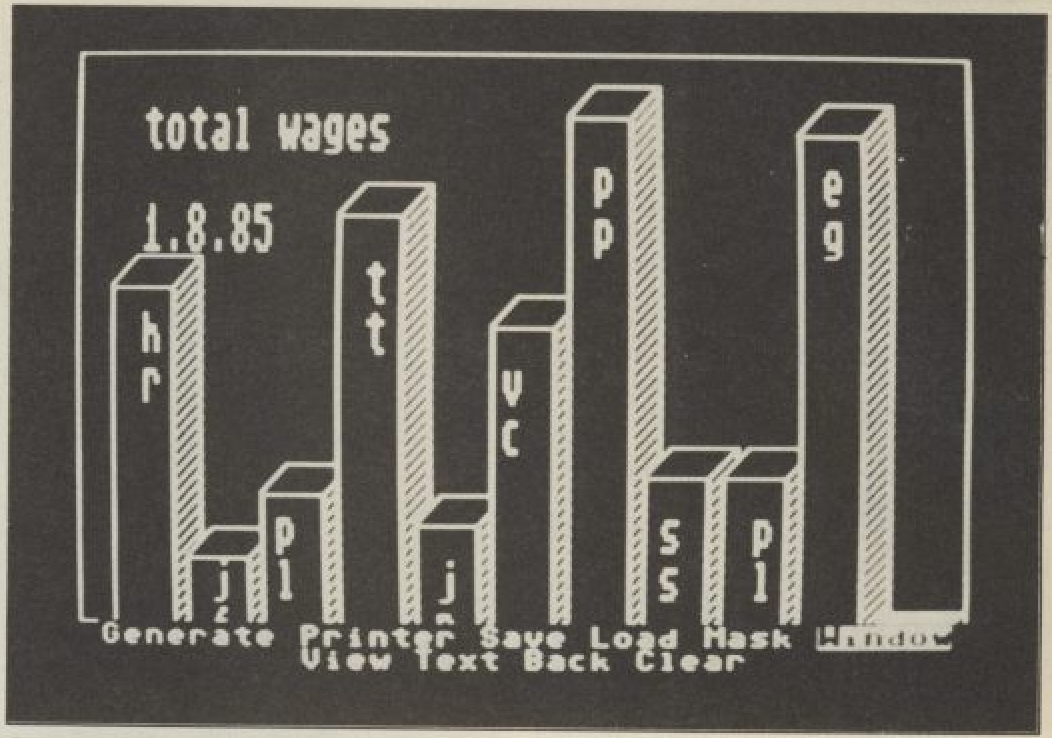
Presumably, the C128 version will allow the 80-column screen model to be employed. Since most print-outs have a width of less than 80 (75 characters wide is usually best), this ought to obviate the necessity for sideways scrolling.

Insertion of print-formatting characters will change the look of the displayed page, and the more you use the less like the finished result will the screen appear, but there is a *View Document* option, which strips away all the formatting, and shows the document more or less as it will be formatted, highlighting special features like underline, bold, expanded and condensed type, subscripting and superscripting.

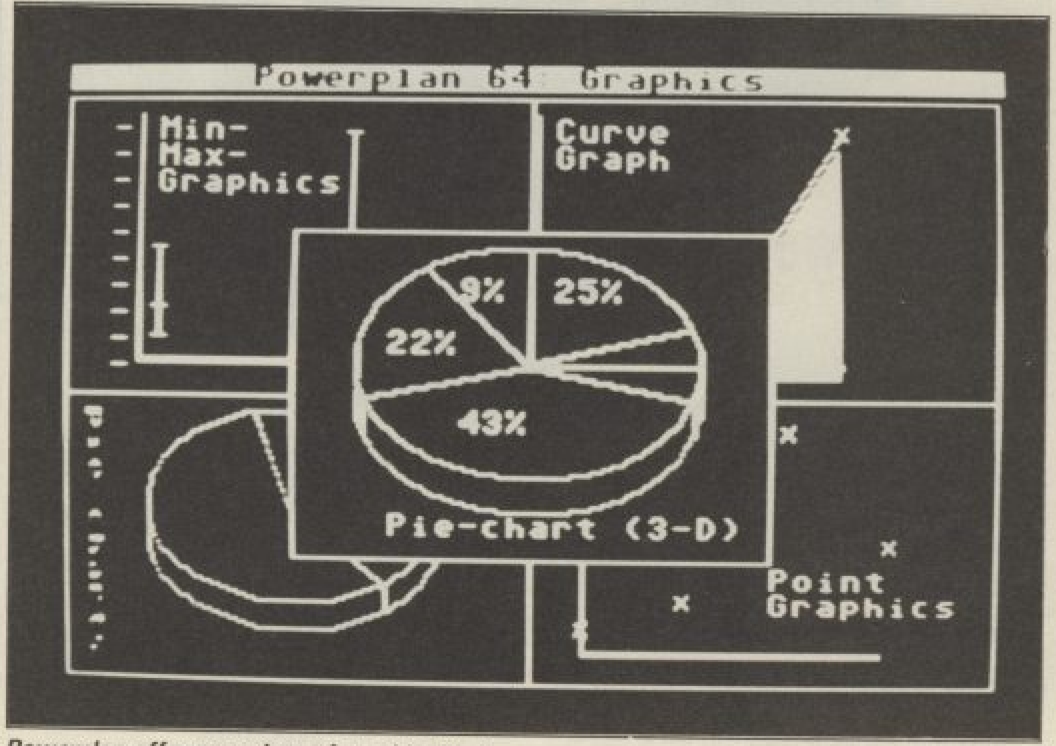
Although Superscript 64 can read and reformat Easyscript files, the process won't work the other way.

This program offers a very superior product at a more than reasonable price. While Easyscript users will find it very easy to upgrade, the way it works is ideally suited to the absolute beginner, and apart from the lack of an index, the manual is a model of how such things should be written and explains anything that isn't immediately obvious.

- Superscript 64
- Precision Software
  6 Park Terrace
  Worcester Park
  Surrey KT4 7JZ
  Tel: 01-330 7166
- Price: £69.95 (disk only)



Barchart showing 3D and text facility.



Powerplan offers a variety of graphic displays.

Spreadsheet with graphics

Though it describes itself as a "table calculation" program, **Powerplan** is actually a reasonably-priced, mid-power spreadsheet with a useful graphics capability, able to produce bar charts, curve graphs (including multiple curves), point-to-point graphs, an interesting chart they call a "mini-maxi graph", and pie charts.

Combining the graphics pack with the capacity for up to eight windows on screen at a time allows several graphs to be viewed simultaneously.

It is configured for a choice of three classes of printer: MPS 801, CBM 1525, or CBM 1526 or Epson FX80 or RX80. There appears to be no way of modifying the configuration of any of these to a printer which is marginally different, for instance a Shinwa, which is a basic Centronics-type machine, rather like an Epson, but without its graphics capabilities.

The program is menu-driven, and most of the mnemonics are fairly obvious. The worksheet itself is average size comprising a maximum of 63 columns and 255 rows, giving a total 16,065 compartments.

The German origin of this package is evident in the meticulous organisation of the manual, which is really very detailed, though some of the translations have lost some clarity in the transition to English.

There are also some discrepancies between what the manual says and what is seen on the screen: to start planning a graph, once the graphics module has been loaded, you have to press G for Generate, not D for Draw-up, as the manual says, and the option for getting rid of the menu to see the finished graph is V for View, not L for Look.

Also, the option to use double-height labels is rather misleadingly described as Capitals (which it isn't) and as "double-length" rather than double-height.

There is also a useful "sideways" option which can be employed to label barcharts down their vertical length.

Though First also publish two other German programs from the same author, First Base and First Word, there is no option to transfer data between PowerPlan and them, though the word processor and file manager can swap data between them.

Moving from the spreadsheet to graphics mode and back again is rather slow, taking about two minutes, though in the graphics mode the spreadsheet in memory can be looked at, though not modified in any way.

As a graphics package, this doesn't compare with the likes of Vizastar, say, but then it's about a third of the price. □

- Powerplan
- First Publishing Ltd
  Unit 20B, Horseshoe Road
  Horseshoe Park
  Pangbourne, Berks
  Tel: 07357 5244
- Price: £44.95 (disk only)



Tommy is Commodore User's resident know-all. Each month he burrows through a mountain of readers' mail and emerges with a handful of choice queries. The result, before you, is a wadge of priceless information and indispensable advice. There's even the odd useful tip as well.

DIY monitor

Dear Tommy, **I have recently acquired a Hitachi 510NJB22 colour monitor from an old arcade machine. Unfortunately it has a five line RGB input (RED, GREEN, BLUE, and probably 2 sync. lines). Could you tell me if there are any products or DIY material available which would allow me to change my composite output from my Commodore 64, to the RGB standard? Your help will be very gratefully received.**

I regret that I am not aware of any products available to allow an RGB monitor to be used on a composite video output such as that from the Commodore machines. Neither is there any way of picking up an RGB signal from inside the computer; the signal is generated inside the VIC chip and emerges as a composite signal directly. Unless you know a friendly TV engineer who *might* be able to convert the *monitor* (and this could be quite expensive) you will be unable to use it with your 64.

Missing blocks

Dear Tommy, **I have been using Easy Script successfully for over a year, but notice that some of my discs are running out of spare blocks more quickly than others. The worst example shows that 388 blocks are missing out of the original 664. What is happening please? Thanks in anticipation of your explanation.**

I assume that you have deleted some files from these disks during the course of your word-processing. What seems likely is that although the directory is being updated, the blocks are not being freed for use, i.e. the BAM (Block Allocation Map) is not being set correctly. This is normally done automatically on deletions; however, if the program does block reads and writes then the program must also reset the BAM itself.

Have you tried doing a *Validate* on the disks that have 'lost' blocks; this should restore the lost areas. If you have been doing any work yourself with Random Access files then this may also explain the problem. It is possible to put data in blocks and set the BAM without any entry appearing in the directory. Again, doing a *Validate* will restore the blocks, but will destroy any Random Access files in the process.

Neat numbers

Dear Tommy, **I'm writing a program for the Commodore 64 to do my home accounts. But I can't get my lists of figures to look neat by having the decimal point in the same place on the columns.**

Can you help me?

The easiest way of doing something like this is to regard the number as a string; you can then use all the string manipulation commands to position the decimal point correctly.

What you need is a short print routine which can be called each time you wish to print a number. By putting the number to be printed in the same variable each time before jumping to the routine you can pass the number as a parameter. Replace each print statement for a number with:

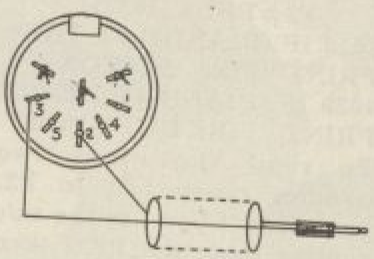
X = number or variable to be printed > **:GOSUB 1000**

The following code should then be included as a subroutine in your program:

```
1000 IF X<0 THEN
     X=X+1
1005 X$=STR$ (INT (X)):
     IF X=0 THEN
     X$="0"
1010 L=LEN(X$):IF L<6
     THEN X$=LEFT$
     ("      ", 6-L) + X$
1020 X=ABS(X):S=INT
     ((X-INT(X)) *100+.001)
1030 S$="." + RIGHT$
     (STR$ (S),2): IF S=0
     THEN S$= ".00"
1040 PRINT X$;S$:
     RETURN
```

DIY monitor

Dear Tommy, **Could you possibly let me know which pins of the Audio/Video port of the 64 should be connected to an external amplifier to improve the sound quality? I consulted the user manual, but the diagram showed a different configuration of pins to the port on my 64. Could you also let me know whether the output is high or low impedence. Thank you.**



The pin configuration is as the manual, except that the socket on the computer has several more pins than the diagram. If you ignore the top two pins and the middle pin you will find that the remaining pins are the same as the manual. Audio Out is pin Three and Ground is pin Two.

If these two pins are connected by a screened cable as shown in the diagram below, they can be connected to an audio amp using a 'guitar' or 'line' input, rather than a 'mic' input. For a hi-fi amp, you can buy a cable with a 5-pin DIN plug at one end and two phono at the other. Just plug them in and the connection should work.

Auto-run

Dear Tommy, **I have a Vic 20 and I am writing a game for it. There are two parts to it and I am loading the second by poking New, Load and Run into the keyboard buffer. Is there any way in which I could make it New, load and then run from line 10 onwards (like RUN 10—).**

Also is there any way of using an interrupt driven machine code routine to constantly check for a run-stop or run-stop and restore from the keyboard and if they are pressed, NEW the program? These are both for security?

One very simple way is to put a GOTO 10 statement as the first line of the second program, which will have the same effect as RUN 10. Also, rather than poke 'NEW,LOAD and RUN' into the keyboard buffer, just put the line LOAD"program-name" at the appropriate place in the program. This will automatically NEW,LOAD and RUN the program, provided the second program is smaller than the first (if it isn't, you can make the first program look bigger by setting addresses 45 and 46 to the same values as they are for the second program).

As for the second question, the KERNAL jump vectors for the STOP key are contained in memory locations 808 and 809. By directing the vector to your own code you can do a cold start instead of a warm start. This will have the effect of NEWing a Basic program. To redirect the STOP vector completely you must do it in machine code, Basic is too slow. If an interrupt occurred while you were changing the vector it would cause a crash. If you simply want to disable the STOP key then **POKE 808,240** or **POKE 808,251** will do the job.

Trying to compile

Dear Tommy, **I recently purchased Stack's Basic Compiler; for most of my programs it has worked with no problems. However, I have tried to compile a program which uses hi-res graphics from address 8192 to 16191. When the compiled program is RUN, the message 'ILLEGAL QUANTITY ERROR' appears. Apparently, the compiled program is also using the area from about 8000 onwards and I presume that it is 'clashing' with the hi-res area. Is there anything that I can do about this please?**

I compiled another program which stored data in the area from about 8000 onward. That had Pokes 54,64:Poke52,64 to protect this area. I found that I had to delete these pokes in order to get the compiled program to RUN without causing an 'OUT OF MEMORY ERROR'. Perhaps this may give a further clue to the problem and its cure.

Unfortunately what you presume is true, the compiled code or possibly the run-time interpreter is occupying the space required for the hi-res graphics or data above 8000. I do not know the exact method the Stack compiler uses, but I suspect that at least one part of the code will not be relocatable, in which case it can only be used for programs which do not clash.

Part of the problem with compilers of this sort is that they do not produce true machine-code; it is a kind of half-way code which runs under an interpreter that resides in the memory along with it. I suspect that it is the interpreter that occupies this area. Is there a limit to the size of program that can be compiled, since this may give you a clue as well? Basically, when you try to run a program with hi-res or large amounts of data, you are just making the total size of program plus compiler too big for the 64.

Hi-res blues

***Dear Tommy*, I have a Vic-20 and 1520 Printer/Plotter. I find both are very good machines. However, I want to print hi-res graphics onto the printer, but I cannot find out whether it is possible, if it is possible how can it be done?**

Because of the way that the 1520 works, i.e. using a pen to draw lines rather than printing a series of dots, there is no simple method for dumping a hi-res screen onto the printer. It would be easier to plot the picture at the same time as it was being built up on the screen since the information you need will be available in the program. If you want to dump a screen that has been created using a commercial graphics program (e.g. with a graphics tablet) then I am afraid you are out of luck; a dot-matrix printer is the only real answer for this sort of thing.

Paddle problem

***Dear Tommy*, I have recently purchased some paddles for my Commodore 64 and have noticed that there is a certain amount of 'wobble' when used. Are my paddles faulty? If not could you suggest a routine to remedy this. Could you also suggest a routine in Basic to show when the paddle button has been pressed.**

Your paddles are not faulty, it is just that you are trying to read them using Basic. The Analogue/Digital (AD) conversion done by the SID chip is very fast; so much so that it will register tiny changes in the resistance through the paddles. Basic is too slow to read the values before they change, hence the wobble.

The only reliable way to read them is using a machine-code routine. A Basic loader program for such a routine can be found on page 347 of the Programmer's Reference Guide; something I suggest you purchase if you want to play-around with paddles and things in your own programs. As for the fire button, the following Basic Code will read paddles one and two:

```
1000 P1 = PEEK(56320):
     P2 = PEEK (56321)
1010 IF (P1AND2) = 0 THEN
PRINT "FIRE BUTTON A"
1020 IF (P1AND4) = 0 THEN
PRINT "FIRE BUTTON B"
```

To read the other two paddles change P1 to P2. Note that if you use the m/c routine from the PRG then this includes reading the fire buttons.

Know your printer

***Dear Tommy*, I am a Commodore 64 user and I've got two questions. What is the difference between C-1515, C-1525 and C-1526 (I mean in the commands)? (I have heard of ROMs for conversion but I would like to know what codes must be converted because I am an old 1515 user).**

The 1515 was the original printer for the Vic 20; it had the old ROM and will not work well with the 64. The 1525 replaced the 1515 and was suitable for both the Vic 20 and the 64 since it contained the new ROM. The 1526 was a more sophisticated version of the 1525, but had a reputation for unreliability.

The problem with the 1515 is one of the timing, not codes. The 64 has to keep refreshing the screen and the interrupts, to enable this to happen upsets the normal control timing. New ROMs for all the Commodore peripherals were developed to overcome this problem, hence the release of the 1525 printer and the 1541 disk drive.

There are two ways of solving the timing problem on the 1515 when using it with a 64. One is to try to get hold of the new ROM (Commodore *might* still supply it although I have my doubts); it is a simple case of taking out the old ROM and substituting the new one.

The other much cheaper, but less efficient way is to turn the screen off each time you access the printer (**POKE 53265,11** to turn it off and **POKE 53265,27** to turn it back on again). This is obviously no good when using commercial software unless you can get at the code to alter it, so a new ROM (or new printer) might be the only solution.

Dodgy 16 graphics

***Dear Tommy*, I wonder if you can help me with a problem I've been having with my Commodore 16. I am trying to write a program that enables me to draw shapes on the screen in hi-res mode.**

The problem is that the program has some errors in it which cause it to hang up. As the computer is in hi-res mode (graphic 3) I don't get an error messages displayed on the screen so I don't know what's going wrong.

Also, there seems to be no way of returning to the text screen apart from switching the computer on and off again, thereby losing my program. Please, please can you help?

This is a fairly common problem, probably due to the way the 16 was originally designed. There are a number of ways around it, though.

The simplest, although it's a bit messy, is to type a load of garbage on the C16's keyboard and then press Return. You'll then get a syntax error which causes the machine to default to text mode.

Another way round it would be to take advantage of the easy way in which you can program the 16's function keys. You need to program one of these to return you to text mode. Include the following line at the beginning of your program:

KEY1, "GRAPHIC 0" + CHRS(13)

In the line above, 'KEY1' refers to the first function key. This is assigned to the command "GRAPHIC 0", which returns you to text mode. The last bit, CHR$(13), is the code for Return. Now all you have to when the machine hangs up is press the F1 key and you will be returned to text mode.

Finally, you could use the TRAP command. This is used to trap catch errors which occur when a Basic program is executed. Here's one example of how you could use it:

```
10 TRAP 1000
20 — your program —
.
.
1000 GRAPHIC 0
1010 PRINT "ERROR";
ER; "IN LINE"; EL
1020 STOP
```

What's happening here is that TRAP is saying, "if you hit an error, don't stop the program, go to line 1000". When it gets there, it finds the instruction to return to text mode.

C16 upgrade

***Dear Tommy*, I have seen lots of expansion cartridges advertised for the Commodore 16 which claim to expand my humble little machine to 64K.**

If I buy one of these — and they're none too cheap — will I be able to use it like a Commodore 64 and run 64 software? Answer appreciated.

The short yet sharp answer to your query is a resounding no. There are two reasons for this. Firstly, the C-16's Basic is rather different to that on the 64 so programs will probably foul up with syntax errors.

Secondly, many commercial programs are written in machine-code. Since the memory map on the 64 is organised differently to that on the 16, running such programs would cause the machine to crash because none of the code would be sitting in the right place.

The expansions you refer to are only useful if they're accompanied by software or include extended Basic commands for use in your own programming. □

COMMODORE user

UP, UP, AND AWAY WITH NEXT MONTH'S ISSUE

SUPERMAN — the computer game

SUMMER GAMES II — HINTS & TIPS • CP/M ON THE 128 — WHAT IS IT? • U.S. AMIGA LAUNCH • INSIDE INFOCOM • STACKS OF GAMES EXCLUSIVES — SUPERMAN — GAMES, COMICS, T-SHIRTS & VIDEOS TO BE WON!

ON SALE AUGUST 26

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5 × 64 £350 bored executive wishes to dispose of above executive toy which he has used for less than 20 hours. Interested? Call his P.A. Karen on 01-992 8055.

1520 printer plotter. Hardly used still under warranty. Snip at £45.00 including post. Tel: 04577 3871. 17 Summershades Lane, Grasscroft, Oldham, Lancs OL4 4ED.

CBM 64 disk drive printer. C2N recorder, 2 joy sticks. Software, basic parts I & II, Wordstar spreadsheet. Games etc. £480. Ono. Phone: 0474-333668 after 6pm.

MPS 801 dot matrix printer with paper as new still in box only £130 o.n.o. Tel: Cambridge (0223) 357194 during working hours.

VC-20 word processor! Tape or disc, 8k, any printer, only £7! Also 16k and database programs. Atlantic Software, 28 Park Farm Road, Kingston, Surrey.

Grand Prix CBM 64. A program to call up and view Grand Prix results and automatically update driver and constructor championship tables. Data tape included with latest results entered for 1985. £4.85 from J. Hudson, 32 Garrison Lane, Chessington, Surrey KT9 2LB.

CBM 64 + disk drive + tape deck + new modem, unsubscribed + speech synthesiser cartridge + 3 games cartridges. 2 books. 2 dust covers. 150 + tape. 50 + double sided disks. Easy script. Simons Basic. Superbase 64 cost well over £1100. Bargain at £375. Tel: 0226 790435.

Easyscript £50, Easyspell £40. Easyfile £40, all brand new unopened sealed, boxed disks — unwanted gifts. Plus free games with Easyscript — Punchy, Icarus, Mayhem, Humphrey, Pandora's Box will sell together for £110, phone York (0904) 799124.

For sale Commodore 64+ Commodore 1541 disk drive + Commodore MPS 801 dot matrix printer + Zenith data system T.V. monitor. Brand new the lot, £750. Phone Clive 0249 816230.

WARNING

It is illegal to sell pirated copies of computer games. The only software that can be sold legitimately through our classified section are genuine tapes, disks, or cartridges bought from shops or by mail order from software houses. *Commodore User* will press for the maximum penalties to be brought against anyone breaking these rules. We regret that due to large-scale swapping of pirated software we can no longer allow swaps of tapes, disks, or cartridges in our classified section.

Commodore 64 £120. 1701 monitor £150, 1541 disk drive £150, Easy Script £35, Diary 64 £20, Joy stick, paddles, manuals etc. Phone Weybridge 48302 after 8pm. Also 1511 printer, offers.

Citizen IDP-560 printer. 40 column with Centronics interface and seven rolls of paper (7cms wide paper). All ready to run. £100. Ring Neil on Donhead 201 after 18.00 hrs.

1541 Disk Drive for sale plus CBM64 software worth over £300, in total offers in the region of £200 o.n.o. Will post tel. Durham 711807.

Commodore 3032 Computer. 3040 disk drive, 3022 printer with IEEE cables and manuals. £300 o.n.o. Contact Sue Kenward, 0372 376221, daytime.

CBM 8032 excellent condition, full working order complete with Strathclyde basic teaching course and operation manuals — £275 o.n.o. Phone: (09663) 2873. Ask for Andrew.

8050 with Interpod version 1.7 latest £375 o.n.o. limited software basic 4 manual and 8050 book Micro Simplex to run on 64. Latest version complete with instructions £100 o.n.o. Tel: 0783 374470.

EasySpell, EasyFile, EasyCalc. Brand new in original packaging. £30 each. All three £75. R. Harvey, 30 Wimborne Close, Coombe Glen, Cheltenham, Glos. Tel: (0242) 527588.

Personalise your CBM 64. Change initial colours. Choose your own installation message. £14.95. S.A.E. for details R. Harvey, 30 Wimborne Close, Coombe Glen, Cheltenham, Glos. (0242) 527588.

Vic-20 + C2N + 16K rampack + Quickshot II, Joystick, 2 Victapes, several games (Jetpack Arcadia & others) several magazines £85 (p&p incl.). Phone 0553 764511 or 0485 600530.

Vic 20, C2N, Intro to Basic, 13 tapes, 9 cartridges including: The Count, Chess, Omega Race, Mutant Herd, etc. Programmers reference guide, games book. Less than year old. Genuine reason for sale. Only £100. Ring 01-679 7313.

Sale printer MPS 801 — £120 o.n.o. Easy file — £20. Phone Telford 460905 or write H. Willmott, 25 Applebrook, Shifnal, Telford TF11 9PZ.

CBM 64 Disk user wanted to exchange ideas and programs. Send your list to: Michael Lacey, Ferns, Post Office, Co. Wexford, Rep. Ireland.

CBM 64 £140. 1541 disk drive £150, 1520 printer £40, CN2 dataset, Joystick, assorted software including Simon's Basic £50 to sell separately or all together £335 o.n.o. Tel: 061748 2175 (Manchester). Ask for Dave.

CBM 64 software including Falcon Patrol (both) Hunchback II and several more education adventure and Arcade from £1.50 each. Phone (01) 360 4728.

Amateur Radio, radio disk CBM 64. Track any orbital satellite including shuttle or moon. Easy to update file program, plus distance and bearing etc. £12.50. G6ILR QTHR 05439 76741.

Electricians! My cable selector program for CBM64 enables most economic compliance with the 15th edition. Calculates minimum phase conductor capacity, voltdrop, shock protection, C.P.C. size. £4.99 CWO. Tony Spry, 13 Tudor Drive, Barnstaple, Devon EX31 2DR.

Wanted, good home accounts program with multi account facility, budgeting and full listing options for CBM 64. Disk preferred. Phone (0302) 744727 weekends only (Mackenzie).

CBM 64 stack lightpen plus 10 amazing games. In its own box, brand new. Unwanted present £20 ono. Contact Nadeem on 578 7572 between 6-9p.m.

Disk Drive 1541 £150 boxed. Printer GP100 VC £140. Fully expanded Vic-20 with cassette, Joys, motherboard graphics. £100 o.n.o. Tel: Reading 868043 after 6p.m., Walters.

Swedish CBM6H owner wants to swap programs with all people all over the world, both girls and boys. Only on disk. I have over 2000 programs. Please enclose a list. All letters answered. Write to: Tord Mattsson, Box 114, 440 92 Svanesund, Sweden.

Vic 20 games for sale, all originals: Skyhawk (3,8,16K), Star Defence (16K), Arcadia (unex), Creepers (3,8,16K), Abductor (unex), Golf (16K), Charriot Race (unex), Country Garden (16K), Krazy Kong (unex), Metag-alatic Lama's Battgle (unex). £3.00 each. Tel. (0324) 29648.

Wanted Vicmodem or 16K switchable ram or machine code monitor for Vic-20. Send me manufacturers name and asking price. Contact me at Jimmy, 62 Husband Road, Forest Hill, Victoria 3131, Australia.

Help wanted with Sword of Hrakel I need help urgently with this adventure. If you've solved this and would like to send me some clues, contact me at Jimmy, 62 Husband Road, Forest Hill, Victoria 3131, Australia.

1520 Printer/Plotter User Group. 1st issue of programmes now available, including:- Word Processor, Hi-Res Plotter, Chart Drawer, Device 4 Setter. S.A.E. For details to Steven Birks, 86 Birches Head Road, Stoke-on-Trent ST1 6LJ.

Penpal for Vic user swap games and listings unexpanded games only. J. Hadlow, 10 Roman Camp, Broxburn, Scotland. Phone 853060.

Gutman Fan

I would just like to say how much I like your magazine, especially Dan Gutman's reports on Commodore's developments. It's so refreshing to see a magazine that is more than a type-in program mag. If there is one criticism, it's that Tommy's Tips isn't long enough. Would it be possible to extend his section of the magazine, as his information is very valuable indeed?

Keep up the good work.

Darren Allen,
31 Balmoral Way,
Warley,
West Mids.

Tommy doesn't like being confined to two pages. Sadly, with such a lot to put into each issue, we can't really afford to give him more room.

Return to Sender

Please could you tell me whether I hold the record for returned machines?

I purchased my first Commodore 64 on the 17/9/84 and up to now all have developed some fault. I am now on my seventh (and last) C64. If this goes wrong I will throw the towel in and give it up as a bad job. I will probably go for a BBC B as my faith and patience is running out with Commodore machines.

I hope I do hold the record and no one else has had any back luck.

M. Lofthouse,
71 Fecitt Brow,
Blackburn,
Lancs BB1 2AT.

Any more tales of woe? We'd like to hear from you.

Staff meeting

In reply to David Charles' letter (June 1985 issue) about wanting to get in touch with someone else who has defeated "Staff of Karnath", well I managed to complete it on 2nd March 1985.

Hope to hear from you, David!

Rick Jones,
9 Hobart Crescent,
Dover,
Kent CT16 2HP.

I have finished Staff of Karnath many times but I can't seem to beat my best time of 6:47p.m.

I am sure others have finished Staff but what time did they finish it in.

Have I got the fastest time or has someone beaten me? If I have been beaten I would wish to contact him (or her!) and find out their methods.

Hamant Patel,
3 Finedon Road,
Wellingborough,
Northants.

Plus/4 Fan

Hello! Yes, we do exist. Somewhere in the nether regions of Great Britain, there really are some of us. And most of us are really proud of our silicon boxes. A strange and wonderful company in Corby made our boxes, and we believe that your magazine is meant to cater for our needs.

Great. But where are you? Have you ever heard of the Plus/4. You know, the 60K (useable) RAM machine, with the inbuilt software (3 pieces of which are actually very good), with 121 colours, a superb Basic, a decent keyboard, an inbuilt monitor, . . . and no support from you lot. Yes, this is a pointing finger.

So, our boxes are compatible with C16s then, are they? Then why isn't the machine code article called 'Beyond Basic on the C16 and Plus/4'. Why aren't the Plus/4 programs reviewed (I myself have Logo, Zork I, II, and III), and why don't "Tower of Evill" (Creative Sparks) and "Dark Tower" (Melbourne House) work on my machine?

Lastly, but not leastly, I hope you all realise that it is only with the support of magazines like yours (or lack of it) that machines climb to success or flounder; so Come On! Get out of your mud huts, and cater for us weirdos.

Michael Valentine,
101A Underdale Road,
Monkmoor,
Shrewsbury,
Shropshire.

You seem to overestimate our powers. Computers succeed only when lots of people buy them. Enough said? Still, we're pleased you like your machine enough to write about it.

That's not cricket

I am writing about your cricket article in July issue. I am quite upset at the writer's total destruction of CRICKET 64. It is obvious that the writer had not played the game and noticed how realistic it really is.

May I point out some of the features not mentioned:

- There is a test match and a limited over match.
- Before each over the fielders may be re-positioned and a new bowler chosen.
- No balls and wides.
- Catches, LBW and bowled.
- Batsmen are progressivly weaker from No 1 down.

Hence the game is very tactical. Also there is a bowler's card and a scoreboard which can be called after each over.

I think the report was totally unfair. If you asked those that have purchased it you would discover that the game is very playable, realistic and enjoyable.

A local shop sold ten copies in one day and the buyers were thrilled with it.

It is very hard to succeed as a programmer and personal opinion in magazine can be very damaging.

Ken Smith,
Author CRICKET 64,
73 Wakefield St.,
East Ham,
London E6 1NR.

Cricket 64 was compared with two games that proved superior in virtually all aspects. Realism is pointless if it means boring game play. MP.

Group for London

It appears that there is no Commodore 64 Users Group in the whole of South East London. The groups nearest to my address are in Orpington and Islington, miles away!

I would like to make contact with other 64 owners in S.E. London, especially in Lewisham (where I live) or the neighbouring districts (Greenwich, Bromley, Blackheath), either to set up formally a S.E. London 64 Club (if there is sufficient interest) or to share ideas and interests with individual enthusiasts.

My interests are all kinds of educational applications, foreign languages (any), programming foreign characters, adventure games (including writing of adventures) use of Pascal on the 64.

Will anyone interested please write to me?

Klaus Bung,
13 Wisteria Road,
London SE13 5HW.

More for the Plus/4

I am sure that many readers who own a Commodore Plus/4 micro have experienced the same problems as myself in obtaining technical information and software for their machines.

I intend starting a non-profit making service which aims to provide Plus/4 users with technical information, product news, software exchange etc. The material offered would be based upon articles, listings etc. obtained by members of the group.

If any readers are interested, would they please send a stamped addressed envelope for further details. I would also like to hear from any suppliers of Plus/4 software, peripherals etc.

Steve Kent,
203 Wolverhampton Road,
Pelsall,
Walsall,
West Midlands WS3 4AW.

Complaints Dept

I am dismayed to see that in your last three issues, you've devoted such a lot of space to the new 128 and Amiga, computers that have not even appeared in shops in the UK.

As a 64 owner, I've always felt your coverage of that wonderful machine was unsurpassed. Are you eventually going to ditch us 64 owners, like the Vic, when the new Commodore machines take over?

B. Dugdale,
"The Elms",
4 Spur Road,
London N15.

The computer industry doesn't stand still, so why should we? We wouldn't be doing our job if we didn't tell you what exciting new things Commodore's got in the pipelines. But that certainly doesn't mean we'll ignore existing products.

Send your letters to
Commodore User,
Priory Court,
30-32 Farringdon Lane,
London EC1R 3AU.

Letters Letters Letters Letters Letters Letters Letters Letters Letters

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Commodore International Cartridge swap. Exchange your played-out cartridges for somebody else's played-out cartridges. Small charge per swap for postage. Interested? Contact Cartswap, 62 Husband Road, Forest Hill, Victoria 3131, Australia, state whether Vic-20, Commodore 64, Commodore Plus/4 or Commodore 16.

I wish to change games and other programs with hackers in England. Write to Hans Angermund, Gastjärnsberget 5071, 882 00 Langsele, Sweden.

Vic-20 starter pack, 16K ram, good joystick, £70 of software, books, blank cassettes, magazines. All excellent condition. £170 o.n.o. Ilford area. Ring 01-550 1380 evenings.

CBM 64 1541 disk drive C2N Easyscript, Simon's Basic, Intro Basic Part I, 35 games like Ghostbusters, Impossible Mission, Raid Over Moscow. £375 o.n.o. Tel: 061 795 2155 after 6.30pm, Ian.

Future Finance and EasyScript both original for £35 +p&p. Write to Z. Adas 54 Marlborough Road, Beeston, Nottingham or ring 255280 after 5.30 any day.

CBM 64 User would like to correspond with others to exchange ideas etc. Send letter on tape or disc to Shawn Fuller, 79 Woolley Street, Christchurch, New Zealand.

Commodore 64 User wants computer penpal aged 11-12. Write or send a program on tape (I promise to send back any tapes) to David Porter 35 Thorngate Drive, Belair 5052, South Australia.

Revitalise your Vic-20 with a prom/ram expansion kit. Includes board and instructions, just add 2716/2732 prom or 6116 ram. Send £4.25 to: Seddon, 63 Portland Road, Birmingham.

Commodore 64 Business software. Easy Script word processor program, Easy File data base, Easy Calc for use with numerical data. All on disc in original un-opened packages, £40 each, £100 all three. Adam Mann, 1 Lincoln Court, Lincoln Ave., Peacehaven, E. Sussex. Telephone 6271.

C64 Software for sale Games Creator, The Unorthodox Engineers, Skramble, Matrix, Programmers Reference Guide, plus more, phone Keith Basildon (0268) 556941.

Commodore 64 "Future Finance" package for sale usually £75 will accept £50, phone 021-421 4758 (evenings).

Will anyone swap me a Currah Microspeech for £40 worht of software. Games include B.J. Challenge, Rocky Horror Show, Starion, Starstrike, Make a Chip, T.L.L. Everyones a Wally, Underwurlde, Night Gunner, Royal Birkdale, or I'll swap any 2 games for Paintbox, H.V.R.G. or Melbourne Draw. Tel: Wigan 48632 (after 6pm) and ask for David.

1515 printer for sale, tractor feed, dot matrix, various size print and graphics. Good condition. Ring Colchester (0206) 578143, evenings.

Vic-20 user aged 14 who would like a penpal to exchange games and information. You do not need to have a lot of experience. Write to 10 Morton Court, Blackwood, Lanarkshire, Scotland ML11 OH2. All letters answered.

CBM 64 owner wishes to swap or sell Bruce Lee, Sumer Games, Dungeons of BA. And Ghouls (disk only) send lists to Gareth Davies, Tyddyn Ucha, Llangernyw, Abergele, Clwyd LL22 8PS.

MS 64 Compiler. Need fast! Machine Code? *Compile Basic (like) Statements generating speedcode designed for 6502 architecture *Integrated Assembler, time Critical Coding * Sound, graphics, sprites, procedures, repeat & while, 32 fast MCode Commands *90 second compilation/16K source * Resident Compiler (source) loaded cassette. (edit — compile execute sequence fast and enjoyable * 23K compiler/36K free user! Tidal Software, 10 Hawkhead Street, Southport, Merseyside PR9 9HF.

C64 Software, Future Finance £20, Easyscript £20, Music Composer £5, C64 computer £95, 1541 Disk Drive £135. Phone 021 777 6756.

CBM64 Games to swap or sell. Worth £160 but will sell all 24 for just £45! Inc. pole position . . . Bungeling Bay, Rocky Horror, BC's, Quest . . . write for full list to Andy Clarke, 'Greenheath', Hilltop, Baddesley-Ensor, Atherstone, Warwickshire, CV9 2BQ.

Commodore 64 Computer, MPS 801 Printer, 1541 disk drive, joysticks, various manuals, plus lots of software including Utilities, Games and Business. £400 o.n.o. Telephone 077-473 3023.

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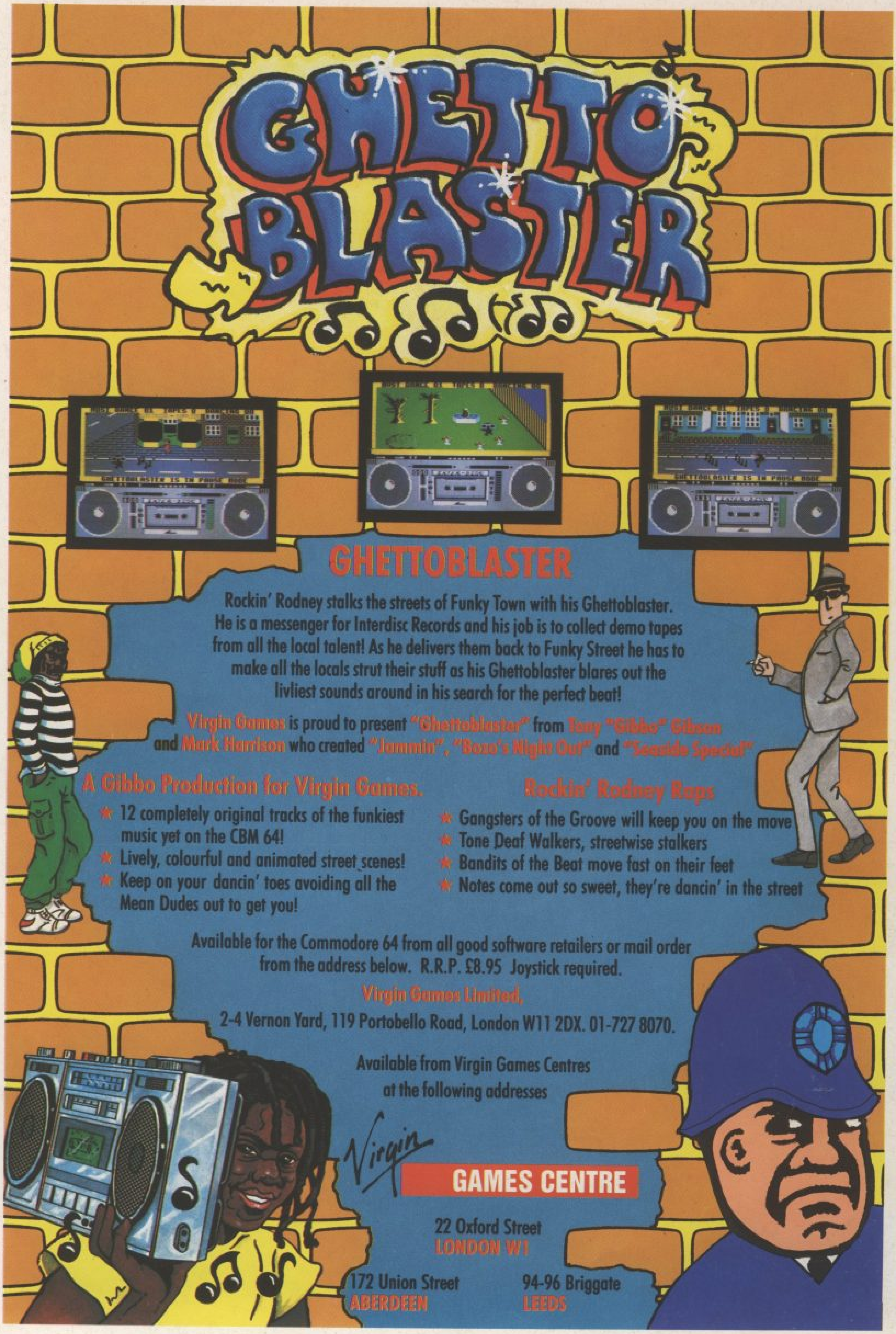
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Warning
It is illegal to sell pirated copies of computer games. The only software that can be sold legitimately through our classified section are genuine tapes, disks, or cartridges bought from shops or by mail order from software houses. *Commodore User* will press for the maximum penalties to be brought against anyone breaking these rules. We regret that due to large-scale swapping of pirated software we can no longer allow swaps of tapes, disks, or cartridges in our classified section.


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GHETTO BLASTER
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